WASHINGTON STATE DEPARTMENT OF
Natural Resources
Doug Sutherland - Commissioner of Public Lands

REPORT TO THE LEGISLATURE

OPTIONS FOR INCREASING REVENUES TO THE TRUSTS:

COMPARISON OF RETURNS FROM INVESTING IN REAL PROPERTY AND IN PERMANENT FUNDS

January 2003

Doug Sutherland
Commissioner of Public Lands

January 16, 2003

The Honorable Dino Rossi, Chair
Washington State Senate
PO Box 40482
Olympia, WA 98504-0482

Dear Senator Rossi,

In the 2002 Supplemental Capital Budget, the legislature directed the Department of Natural Resources and the trust beneficiaries to study options for increasing revenues to the trusts. The attached report, the result of that study, is respectively submitted.

The Department has met or corresponded with representatives of all the beneficiaries in the development of this report. The department is grateful to the many beneficiaries who took the time to read and comment on the draft report. Where appropriate, their comments have been incorporated into the report. Their suggestions have significantly improved the final product, contributing greatly to its content and clarity. In addition, some of the beneficiaries have provided written and verbal recommendations that were incorporated into the recommendations section of the report. We anticipate that others may provide additional input after the report is published. The Department will then forward those comment to you as an addendum to the report if appropriate.

This report lays the foundation for on-going discussion about the financial return to the various beneficiaries from the management of the federally granted trust lands. We believe the six recommendations contained in the report represent the logical next steps for increasing revenues to the beneficiaries from the trust assets managed by the Department.

We look forward to discussing the results of this study with you during the 2003 legislative session.

Sincerely,

Doug Sutherland
Commissioner of Public Lands

Enclosure

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Special thanks to the members of the beneficiary groups, and State Investment Board who reviewed and commented on this report. Where appropriate their comments have been incorporated into this report; these changes have greatly improved the content and clarity of the final product.

Phil Aust, Project Manager

Department of Natural Resources

REPORT TO THE LEGISLATURE:

OPTIONS FOR INCREASING REVENUES TO THE TRUSTS: COMPARISON OF RETURNS FROM INVESTING IN REAL PROPERTY AND IN PERMANENT FUNDS

January 2003

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Chapter 1: Executive Summary

1.a Legislative Directive:

In the 2002 supplemental capital budget the legislature directed the Department of Natural Resources and trust beneficiaries to study options for increasing trust revenues, focusing on the comparison of returns over time from purchasing replacement trust land or investing the proceeds from land sales in the trusts' permanent funds.

The legislature further directed the department to report on the study to the legislature. This report is in response to that request.

1.b Background:

Washington received 3.2 million acres of federal grant land at statehood. The two forest board trusts were added in the 1920s and 1930s. The preservation of the corpus of the trusts in some form has been an important consideration from the time the grants were created. Congress provided for the perpetuation of the educational trusts in Section 11 of the Enabling Act, by requiring that proceeds from the sale or permanent disposal of educational trusts' assets be placed into permanent funds.

Permanent funds were established for the Common School, Normal School, Scientific School, Agricultural School, and State University (University Original) trusts. These trust funds support the following educational institutions, respectively: the common schools, the state's four regional universities, Washington State University (both Scientific and Agricultural) and the University of Washington. There is no permanent fund for the Charitable, Educational, Penal, and Reformatory Institutions (CEP&RI), Capitol, or the forest board trusts. The proceeds from the sale of land, permanent rights-of-way, and non-renewable resources from the portion of the CEP&RI designated for support of the University of Washington are currently deposited in the University Permanent Fund[1].

The question of whether to retain and manage trust lands, or to divest of them and invest the proceeds in the permanent funds has been an ongoing debate since statehood. The

[1] See RCW 43.79.060 and RCW 28B.20.800 through RCW 28B.20.820

state has retained 2.2 million acres, 69 percent of the original grant lands. Most of the 974,000 acres disposed of were sold prior to 1930. Since 1930 the state has had a strong policy of retaining its trust land base.

The Department of Natural Resources was created in 1957. One of the duties given to the department by the legislature is to establish policies to ensure that the disposition and acquisition of trust lands is based on sound principles designed to achieve the maximum effective development and use of trust lands (**RCW 43.30.150(2)**).

The original grants were scattered and difficult to manage, which limited revenues to the beneficiaries. To remedy this problem, the legislature has given the department tools to facilitate rearranging these lands into more manageable and productive holdings to increase the revenues to the beneficiaries.

In 1957, the department was authorized to enter into exchanges to facilitate the marketing of forest products and the acquisition of properties with greater income potential. The legislature instructed the department to enter into exchanges only when in the best interest of the trust for which the land is held and instructed the department not to use exchanges to reduce the publicly owned forest land base.

In 1984, the department's exchange authority was extended to the exchange of trust lands through a land bank. The legislature directed the department to purchase replacement properties that would increase the potential income production of the trust and directed that the use of the land bank not result in the depletion of the publicly owned land base or reduce the publicly owned forest lands.

In 1989, the Trust Land Transfer (TLT) program was created. Under the TLT program, trust lands no longer suitable for trust management are identified and the legislature funds the transfer of these lands to eligible recipients (local jurisdictions, State Parks, DNR's Natural Areas Program, etc.) for recreational use, open space, park, wildlife habitat or natural areas purposes. The value of the timber transferred is deposited in the trust's current account, and the value of the land is used to purchase replacement trust property[2].

The Trust land transfer process only applies to the Common School Trust as it serves the triple purpose of funding school construction, conserving land and habitat, and diversifying the school trust's portfolio. When another trust's lands are identified as suitable for transfer under the TLT program, the department first does an intergrant exchange between Common School and other trust's lands of equal value if the exchange is in the interest of each trust.

In 1992 the department was authorized to directly transfer trust property to public agencies or to resolve trespass and ownership disputes. The legislature directed that such

[2] Since 1992 the value of the land has been deposited in the Natural Resources Real Property Replacement Account.

transfer only be made after the property is first appraised, and instructed that properties may not be transferred at less than fair market value, and only transferred if to do so is in the best interest of the affected trust.

As a part of the 1992 legislation, the Natural Resources Real Property Replacement Account (RPRA) was created to receive funds from the transfer of trust lands. Funds placed in the RPRA were to be used solely for the acquisition of replacement property.

1.c Activity since 1989:

From 1989 through the 2002 biennium, more than 84,000 acres have been removed from trust status through the land bank, direct transfer and trust land transfer programs. The transfers (land and timber) were valued at $420 million. Over $300 million of the timber value was transferred to the Common School Construction Account through the Trust Land Transfer Program. During this same time period, the department has purchased more than 39,000 acres in replacement property valued at $127 million. Of this total, about 44 percent of the amount was used to purchase replacement forest land, 54 percent to purchase commercial properties, and the remaining 2 percent to purchase agricultural lands.

1.d Return on Investment:

The weighted average projected total real return on these replacement property acquired since 1989 is 6.7 percent while the nominal return on the permanent fund since 1989 is 6.8 percent. Two adjustments are required before these two returns can be compared.

First, the total real return on the acquisition of replacement property by the department needs to be reduced by the management fund deduction of 25 percent; this results in a net real return to beneficiaries of 5.0 percent.

Second, to make the nominal return to beneficiaries on the permanent fund comparable to the real return on replacement properties, the return on the permanent fund needs to be adjusted for the loss in purchasing power on the permanent fund due to inflation. The loss in purchasing power on the permanent fund since 1989 averaged 3.1 percent per year; this results in an average net real return to beneficiaries on investment in the permanent funds of 3.7 percent.

The projected real return to beneficiaries of 5.0 percent from purchase of replacement trust properties since 1989 is 32 percent greater than the comparable real return to beneficiaries of 3.7 percent from the permanent fund.

1.e Appreciation and Long-term Revenue:

One important difference between these two alternative investments is that the beneficiary receives all of the interest income on the permanent fund as it is earned. The real value in purchasing power terms of the corpus of the permanent fund is reduced over time by inflation, while land values increase with inflation. The appreciation in replacement land value accrues to the value of the asset and is realized by the beneficiary through higher rents and/or higher prices for the sale of the assets over time. Thus while the permanent fund may result in a higher dollar return to beneficiaries in the short run, investment in replacement property is expected to result in greater long term revenues to the beneficiaries.

1.f Diversification:

Over half of the value of replacement property purchased has been non-forest lands. This diversification of asset value has resulted in the growth of lease revenues from irrigated agriculture and commercial real estate. Revenues from irrigated agriculture leases have increased from $1.5 million in 1989 to more than $3.2 million in 2002, a 113 percent increase. Revenue from commercial real estate increased from $0.9 million in 1989 to $5.6 million in 2002, a six-fold increase. While irrigated agricultural and commercial real estate holdings represent a small portion of the trusts' land assets portfolio, these data show the positive effect of asset value diversification on sustainable revenue.

1.g Other Benefits:

In addition to providing a better return on investment, greater long-term revenue to beneficiaries, and diversification of the trusts asset base, the purchase of replacement property allows the department to meet other legislative objectives given to the department. By purchasing replacement property the department is better able to maintain the publicly owned land base and the publicly owned forest land base.

By purchasing replacement property the department is better able to maintain the sustainable harvest of timber from department-managed lands. Most of the forest lands disposed of through the land bank, direct transfer, and trust land transfer programs were off base or otherwise did not contribute to the sustainable harvest. Timberland acquisitions target stands that increase the sustainable harvest level, thus increasing current revenues to beneficiaries.

By purchasing replacement trust property the department is able to provide multiple use benefits that are consistent with providing revenue to trust beneficiaries. A number of studies have shown that the social, environmental, and economic benefits from trust lands are of great value to the citizens of Washington State. Without the purchase of replacement property these benefits would diminish over time.

1.h Recommendations

This report to the Legislature lays the foundation for on-going discussion about the financial return to the various beneficiaries from the management of the federally granted trusts. The Department has met with or corresponded with representatives of all the beneficiaries in the development of this report. The department is grateful to the many beneficiaries who took the time to read and comment on the draft report.

During the development of this report to the legislature, the department has identified some areas for further study. The following six recommendations incorporate both beneficiaries and the department recommendations.

We recommend that:

I) Funding be made available to determine the current value of all trust assets managed by the department.

II) Funding be made available to evaluate the economic, social, and environmental returns to the citizens of the state from the "multiple use" benefits of trust lands that occur collaterally to the returns to the financial beneficiaries.

III) Based on the results of I and II above, the department together with beneficiaries develop a prudent asset diversification plan for each trust that will increase expected financial returns while reducing risks to beneficiaries.

IV) The state should evaluate the constitutionally mandated 160 acre parcel size limit for land sales to determine whether this limit or any other acreage limit unnecessarily restricts appropriate diversification of the trust assets; or whether this or other size limit protects the trusts from diminution as a result of large parcel discounts on sales.[3]

V) The department engage in multiparty facilitated land exchanges, and grouped land transactions to accelerate the rate of diversification and reduce cost where to do so is in the interest of the effected trust(s).

VI) Funding be made available to investigate a wide array of potential future markets for trust assets that could result in increased revenues to beneficiaries.

The department respectfully submits these recommendations along with this report as requested in the 2002 supplemental capital budget for the legislature's consideration. We look forward to working with the trust beneficiaries and the legislature on the next steps

[3] Constitution of the State of Washington - Article XVI, Section 4.

Department of Natural Resources, Report to the Legislature: "Options for Increasing Revenues to the Trusts: Comparison of Returns from Investing in Real Property and in Permanent Funds"

in increasing revenues to the beneficiaries from the trust assets managed by the department.

Chapter 2: Introduction

In the 2002 supplemental capital budget the legislature directed the Department of Natural Resources (department) and trust beneficiaries to study options for increasing revenues to the trusts, including returns from purchasing replacement trust property or investing the proceeds from the sale of existing trust property in the trusts' permanent funds. The legislature directed the department to report back to the legislature on the study.

Trust properties managed by the department include the seven federally granted trusts (Common School, Normal School, Agricultural School, Scientific School, State University, Capitol, and CEP&RI), the two county trusts (Forest Board Purchase and Transfer) and the Community and Technical College Forest Reserve.

Permanent funds were established at statehood for the Common School, Normal School, Scientific School, Agricultural School, and State University trusts (University Original). These trust funds support the following educational institutions, respectively, the common schools, the state's four regional universities, Washington State University (both Scientific and Agricultural) and the University of Washington. There is no permanent fund for the CEP&RI, Capitol, the Forest Board or Community and Technical College trusts. In 1893, the legislature designated 100,000 acres of the CEP&RI grant lands for the support of the University of Washington. Revenues from the sale of land and nonrenewable resources from CEP&RI lands dedicated to the support of the University of Washington are currently deposited in the University Permanent Fund.

The legislative direction for this study originated in the legislature's discussion of relative investment returns from replacement trust lands and the permanent funds and consideration of asset value diversification and the wisdom of selling or transferring land assets and reinvesting either in land through the RPRA or financial instruments through the permanent fund.

The legislature created the Natural Resources Real Property Replacement Account (RPRA) in 1992 to provide a means of diversifying assets, while keeping the value in replacement land as agricultural, forestry and commercial assets rather than selling the land and converting public lands into cash. During the discussion surrounding the level of the FY2001-03 supplemental capital budget for the RPRA, the question was asked whether it is in the trusts' best interest to purchase replacement property or to deposit funds from the sale or transfer of trust real property into the trusts' permanent funds. To

help answer this question the legislature included the following proviso in its supplemental capital budget:

"The appropriation in this section is subject to the following conditions and limitations: The department and trust beneficiaries shall study options for increasing revenues to the trust. The study shall include costs and benefits over time for replacing trust lands with various trust assets including depositing funds from land transfers and sales into the permanent funds. The department shall report on the study to the legislature by December 1, 2002."

This report is in response to that request.

Chapter 3: History of Land Disposal and Relocation Activities

As part of the original compact that created our state, Washington received seven land grants for the support of educational (Common Schools, State University, Agricultural, Normal, and Scientific) and other state institutions (Capitol and CEP&RI).

As one of the later states admitted to the Union, Washington benefited from the experience Congress had gained in granting lands to states, and our state legislature was able to avoid some of the mistakes made by older states. Both Congress and the State placed a number of safeguards to protect the trusts. Limits were placed on how the lands were to be sold, a high minimum bid was set, and limits were placed on the amount of land that could be sold within certain time periods. Early on, the legislature allowed**,** and under certain circumstances required the sale of timber separate from the land.

The preservation of the corpus of the educational trusts has been an important consideration from the time they were created. When Congress created the educational trusts it made clear its intent that the grants be a permanent endowment for the perpetual support of the educational institutions of the state. Congress distinguished the educational trusts from the institutional grants by requiring that when the state sold or otherwise permanently disposed of educational trust lands, the proceeds be placed in permanent funds and directed that only the interest from the permanent funds could be expended for the support of current beneficiaries.[4] Proceeds from the sale of the institutional trust lands were to be available to satisfy current beneficiary needs.

In 1889, on behalf of the people of Washington, the delegates to the state's constitutional convention accepted the terms offered by Congress for Washington to enter the Union. In **Article XVI SCHOOL AND GRANTED LANDS**, the people accepted the Grant Lands and agreed to the terms and conditions under which all the trusts were to be managed**:**

Ch. 1 DISPOSITION OF. All the public lands granted to the state are held in trust for all the people and none of such lands, nor any estate or interest therein, shall ever be disposed of unless the full market value of the estate or interest disposed of, to be ascertained in such manner as may be provided by law, be paid and safely secured to the state; nor shall any lands which the state holds by grant from the United States (in any

[4] The new state did create a CEP&RI permanent fund. That fund was later liquidated.

Department of Natural Resources, Report to the Legislature: "Options for Increasing Revenues to the Trusts: Comparison of Returns from Investing in Real Property and in Permanent Funds"

case in which the manner of disposal and minimum price are so prescribed) be disposed of except in the manner and for at least the price prescribed in the grant thereof, without the consent of the United States."

The Constitution was ratified by the people of Washington State at an election held on October 1, 1889, and on November 11 of that year in accordance with Sec. 8 of the Enabling Act, the President of the United States, ~~Benjamin Harrison~~Grover Cleveland, proclaimed the admission of the state of Washington into the Union. At that moment the federal government officially granted the new state of Washington the rights to 3.2 million acres, seven percent of the area of the state, for the support of public education, buildings, and institutions.

At the constitutional convention there was considerable debate over how the granted lands should be managed. One faction wanted the lands sold as quickly as possible to generate as much funding as possible to help build the education and institutional facilities needed by the new state, while another wanted to prohibit the sale of the trust lands to provide for the maximum long term support of the beneficiaries. In the end, a compromise was struck in Article XVI Section 3 of the Constitution; the lands could be sold but not more than one-fourth could be sold before 1895 and not more than one-half prior to 1905.

In Article XVI Section 4 of the Constitution, convention delegates placed limits on the size of any one sale. No more than 160 acres can be offered for sale in one parcel, and all lands in or within two miles of the boundary of any incorporated city valued at more than $100 per acre must first be platted and sold in not more than five acres at a time.[5]

At the same time, convention delegates set no limits on the amount of lands that could be leased or the sale of timber from trust lands. This gave the state legislature and the people of the state time to debate the fundamental question of retaining the educational trust lands or liquidating them and placing the proceeds into the permanent funds.

In fact, the state decided to retain most of the trust assets in land. Of the original Educational Grant lands of 2.8 million acres the state has retained 2.0 million acres or more than 71 percent. For the original Institutional Grant lands of 432,000 acres the state has retained more than 262,000 acres or 61 percent. (See Table 1 for detail.)

This pattern of trust land retention was not uniform. The University of Washington's original grant was almost depleted before statehood. Of the original University grant of 46,080 acres only 2,937 acres or 6 percent remains. Congress did not make grants to territories, but it allowed them to reserve areas for future selection. Ownership did not pass to the state until statehood. In the early 1860s, without benefit of federal authorization or public auction the University founders sold ownership

[5] The purchasing power of $100 in 1889 is equal to the purchasing power of $2,000 today.

Table 1: Granted Trust Lands
Managed by the Department of Natural Resources

Grant	Designated Beneficiary	Original Acreage	Sold Acreage [3]	Current Acreage[1]	Percent Retained	Permanent Fund Balance
Educational:						
Common Schools	Common Schools	2,432,564	686,544	1,746,020	72%	$163,486,502
Agricultural School	Washington State University	90,000	19,267	70,733	79%	$140,810,235
Scientific School	Washington State University	100,000	19,545	80,455	80%	$154,847,124
Normal School	EWU, CWU, WWU, & TESC	100,000	35,696	64,304	64%	$201,486,521
University Original	University of Washington	46,080	43,143	2,937	6%	$23,769,889
Total Educational		**2,768,644**	804,195	**1,964,449**	**71%**	**$684,400,271**
Institutional:						
Capitol	Capitol Buildings	132,000	23,719	108,281	82%	NA
CEP&RI	CEP&RI - as directed by legislature	200,000	130,109	69,891	35%	NA
	Dedicated for support of University of Washington[2]	100,000	16,131	83,869	84%	
Total Institutional		**432,000**	169,959	**262,041**	**61%**	NA

[1] As of July 1, 2001. Some trust lands have been temporarily liquidated with the funds from those transactions being held to purchase replacement lands. These funds are temporarily held in the RPR account, Land Bank, and State Park Transfer account. The majority of these funds involve the common school trust. Actual areas will increase as replacement properties are purchased. "Actual Acres" were not adjusted for anticipated purchases.

[2] In 1893 the legislature designated 100,000 acres of the CEP&RI grant lands for the support of the University of Washington. See Laws of 1893, Chapter 122, Section 9 (uncodified amended by Laws of 1903, Chapter 91, Section 1 (uncodified).

[3]Sold acreage is calculated by subtracting the current acres from the original acres

rights to over half, 20,524 acres, of the not yet granted University lands for $30,787 at the minimum price of $1.50 per acre. The University got around the fact that it did not own the land by issuing promises to transfer ownership of the land when the grant was made at statehood.

The University used $30,400 of the proceeds from these sales to finance the costs of clearing and improving on the original university site and to finance the first University buildings. The territorial legislature directed that future income from land sales be placed in a permanent fund and the University continued to sell land as quickly as they could find purchasers. In fact purchasers helped the University in identifying lands to select. By 1864 according to the University accounting records they had sold rights to most of the original grant, almost 44,000 acres, leaving only about 2,000 acres remaining[6]. Unfortunately the Permanent Fund proved to be permanent in name only and melted away as a result of financial weakness and mismanagement[7].

Because of concerns about the availability of the grant lands to the territorial University and irregularities in selection and sale of the lands, the Federal Government refused to recognize the sales at the time. But since individuals and private companies who had made the acquisitions were acting upon them by harvesting timber from the lands as if they owned them, eventually in 1864 Congress and the territorial legislature ratified the sales. But because of poor record keeping the exact ownership of all of the land sold by the University was not agreed to by the federal land office until statehood.

After statehood, an additional 931,000 acres were sold from the other trusts' holdings, most prior to 1930. Since 1930 the state has had a policy of retaining trust lands rather than disposing of them. To meet this policy, the legislature has given the department and its precursor agencies tools to dispose of lands while acquiring replacement lands rather than sell the lands and diminish the public land base.

In the 1920s and 1930s Washington faced one of its first major environmental crises - vast areas of private forest land across the state were being neglected and left unproductive. In 1923 to address this growing problem the legislature created the state forest board system and authorized the Director of Conservation to acquire forest lands by gift, or purchase and designate them as state forest lands. Today the state owns 49,400 acres of State Forest Board Purchase Lands.

Other private lands were abandoned and ownership fell to the counties when private owners stopped paying taxes on the lands. In 1935 the legislature required the counties to transfer tax delinquent lands suitable for timber management to the state upon demand by

[6] The Federal Lands Office eventually disallowed some sales and today the original University Grant contains 2,937 acres.

[7] See "Public Lands Disposal in Washington", Frederick Jay Yonce, a doctorial thesis approved 1969

the State Forest Board[8]. The State Forester requested and the counties transferred 539,173 acres to the state. These lands constitute the Forest Board Transfer trust[9].

In 1990 the legislature established the Community and Technical College Forest Reserve and appropriated funds for the acquisition of 3,223 acres. Revenues from these lands go into a special fund for building and capital improvements on community and technical college campuses.

The 1957 legislature created the Department of Natural Resources (**RCW 43.30.030**), consisting of a Board of Natural Resources (board), an administrator (the Commissioner of Public Lands) and a supervisor, and transferred to the department the responsibility for management of the trust lands. One of the duties given to the board by the legislature (**RCW 43.30.150**) is to develop policies to guide the department in administering, including the disposition and acquisition of trust lands to achieve the "maximum effective development and use of these lands."

3.a Exchanges:

In 1932 the state requested and Congress amended Sec. 11 of the Enabling Act to allow the exchange of federally granted trust lands. The amendment authorizes the exchange of any of the granted lands for other lands, public or private, of equal value and as near as may be of equal area. This gave the state a tremendous tool to reposition trust lands into a more productive configuration. As a result of an active exchange program, much of the original grant lands in western Washington have been exchanged for other lands to form larger more economically manageable blocks. As a secondary benefit, these blocks also provide greater opportunity for multiple use benefits from trust lands.

Current trust land ownership in Eastern Washington still reflects the original checkerboard grant of section 16 and 36 lands and Indemnity or Lieu land blocks next to federal lands and Indian Reservations where Sections 16 and 36 were devoted to prior uses. See map, "Major Public Lands of Washington" for detail[10]. The department is pursuing exchange and other real asset relocation opportunities to improve land positioning in Eastern Washington that will increase revenues to beneficiaries.

In **RCW 79.08.180** the legislature authorized the department to exchange any state land and any timber thereon for any land of equal value. In **RCW 79.08.180 (7)** the legislature directed the department not to use exchanges to reduce the publicly owned forest land base. And in **RCW 79.08.180 (8)** the legislature required that each land exchange be in the best interest of the trust for which the land is held.

[8] The State Forest Board was one of the precursor entities to the department and was abolished when the Department of Natural Resources was created in 1957.
[9] See State Forest Board Lands: A report to the Counties - 1987, prepared by the Department of Natural Resources for detail.
[10] The Public lands map is available upon request from the department, but is not included in this report.

Table 2 is a summary of the trust land exchanges since 1989. The department has exchanged 116,000 acres of trust land properties valued at $450 million for 143,000 acres valued at $453 million, resulting in a net increase of 27,000 acres.

In addition to the authority to exchange properties, the legislature has given the department three additional methods to sell or transfer, and reposition assets to create a more manageable and productive portfolio. These include the land bank, direct transfer, and trust land transfer programs. See Figure 1 for detail.

3.b Land Bank:

In the early 1980s, the department was unable to find exchange partners for some parcels with low potential for natural resource management or low income-generating potential or that were inefficient for the department to manage. This was and continues to be the case for some trust lands in areas that are transitioning from forestry to other uses.

In 1984, the legislature found in **RCW 79.66.010** that "from time to time it may be desirable for the department of natural resources to sell state lands which have low potential for natural resource management or low income-generating potential or which, because of geographic location or other factors, are inefficient for the department to manage" and "acquire lands for long-term management to replace those sold." The legislature also states in **RCW 79.66.010**, "it is also important to acquire lands for long-term management to replace those sold so that the publicly owned land base will not be depleted and the publicly owned forest land base will not be reduced."

Based on these findings the legislature created the land bank in **RCW 79.66.020** and directed the department to purchase replacement properties "which would be desirable for addition to the public lands of the state because of the potential for natural resource or income production of the property" and exchange them through the land bank. This creative exchange mechanism was predicated on a long held policy of not depleting the states land base.

3.c Trust Land Transfer:

In the late 1980s, the legislature recognized that the ecological and recreational benefits from some trust lands were of high value to the citizens of Washington State and that these values would be diminished if timber on these lands were harvested. The legislature also recognized that many of these same lands were difficult to manage for commodity production, and as a result had low income potential for the beneficiaries. Some of these lands were being classified as inoperable, and had been removed from the sustainable harvest base, eroding the potential productivity of the corpus of the trusts and reducing both current and expected future incomes.

Table 2:Trust Land Exchanges Since 1989

FILE	Exchange Name	Acres Disposed	Value Disposed	Acres Acquired	Value Acquired	Trusts {1}
515	BLM	6,191.00	1,096,000	4,122.00	1,103,000	CS
71906	CAMPBELL	40.00	195,000	45.00	192,000	CS
512	TWIN FALLS - ARLINGTON	183.00	674,000	970.00	709,000	FB
494	GOODYEAR NELSON	1,120.00	5,302,000	1,320.00	6,415,000	FB, CS
490	BLOEDEL	2,396.00	12,939,000	2,715.00	13,112,000	FB, CS, CB
473	CHAMPION	7,228.27	66,860,000	11,238.18	66,871,000	CS, CB, CEPRI
499	WEYERHAEUSER	2,041.17	26,243,000	5,098.00	26,416,000	CS
496	FRIEND	20.00	215,000	64.00	245,000	CS
T93FVIR	BLENK	0.16	2,000	0.16	2,000	FB
475	FULLNER	40.00	166,363	40.00	169,827	FB
457	LARKSPUR	569.58	1,821,000	680.00	1,846,000	CS
T1397	DECKER	2.70	11,000	4.00	11,000	FB
468	MURRAY PACIFIC	515.00	9,664,300	1,390.00	9,808,315	FB, CS, CB
394	AGNEW	801.47	2,901,661	1,210.00	2,901,691	FB, CS
460	TRILLIUM	9,289.00	32,090,762	10,901.00	32,140,352	FB, CS, CB, NS, SS
321	MCCONNELL	60.00	45,000	55.00	68,750	CS
351	BLM	1,340.40	1,248,482	366.75	1,247,582	CS
T1376	BROOKS	21.30	44,200	47.00	58,700	SS
378	LAKE CHAPLAIN	368.26	2,765,800	373.11	2,749,200	FB, CS
441	MICHEL	480.00	160,000	219.83	385,000	CS
349	PEND OREILLE	10,197.13	13,656,685	10,540.33	13,658,265	CS
424	WALLACE FALLS	125.20	859,831	131.40	859,707	FB
409	SPADA LAKE	629.50	2,332,718	667.80	2,338,376	CS
393	WEYERHAEUSER	26,953.31	126,194,818	38,008.39	125,131,040	FB, CS, AG, NS, CEPRI, SS, CB
426	ROCKY PRAIRIE	120.00	760,924	35.00	765,800	CS
211	BAKER-SNOQUALMIE	4,239.35	24,785,809	4,396.50	24,829,001	FB, CS, NS, SS
414	WIDCO COAL FIELD	83.19	30,800	39.50	30,800	FB
430	GIBBS LAKE	-	3,037,323	658.00	3,033,110	FB
406	REXROAD	2.20	4,950	2.20	4,950	UNIV
384	POPE	3,431.62	5,425,824	3,938.45	5,684,231	FB, CS, CEPRI, CB, SS, UNIV
177	HYDRO BOUNDARY -1	876.83	3,804,049	589.82	3,762,743	FB, CS
192	HYDRO BOUNDARY - 2	488.33	1,571,858	417.33	1,599,839	FB, AG, CB
272	STEVENS-FERRY	5,851.19	2,028,715	5,210.42	2,305,202	CS
418	MIMA PRAIRIE	310.00	1,231,064	1,003.00	1,231,100	FB, CS
372	CRYSTAL LAKE	114.00	1,547,785	146.00	1,558,775	CS
374	VAAGEN	332.00	457,396	616.00	468,135	CS, NS
331	REDMOND HEIGHTS	161.00	3,500,000	5.67	3,675,000	CS
301	SIMPSON	23,224.53	37,592,583	24,253.72	37,766,017	FB, CS, UNIV, CEPRI, CB, SS
		109,846.69	**$393,267,700**	**131,518.56**	**$395,153,508**	

Combined Exchange and Purchase Transactions: {2}

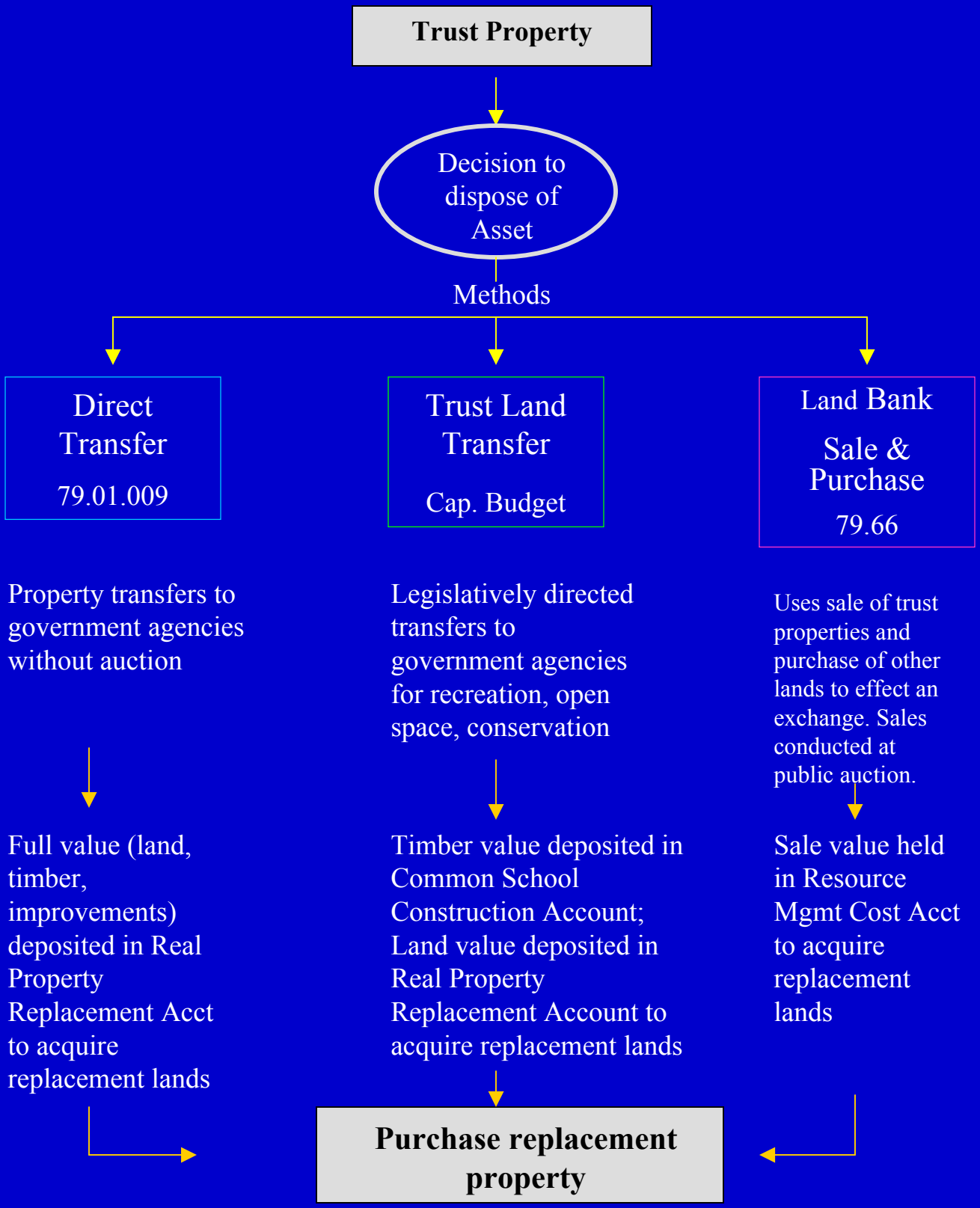
72712	LONG LAKE/WALGREENS	45	5,400,000	2.5	5,400,000	CS, AG, CEPRI, UNIV
505	PLUM CREEK	3583	18,808,100	8545	20,079,100	FB, CS, CB
71666	SEGALE	200	15,000,000	12	15,000,000	CS
71937	MANKE	2487	10,448,000	2674	10,455,000	FB, CS, SS, CEPRI
520	CREEKVIEW	80.88	7,000,000	4.21	7,000,000	CS
		6,395.88	**$ 56,656,100.00**	**11,237.71**	**$ 57,934,100.00**	

Combined Totals		**116,242.57**	**$ 449,923,800**	**142,756.27**	**$ 453,087,608**

{1} CS = Common School, FB = Forest Board, CB = Capitol Building, CEPRI = Charitable, Educational, Penal & Reformatory Institutions, NS = Normal School, SS = Scientific School, AG = Agricultural School, UNIV = University (original & transferred)

{2} Commercial property acres and values also included

Figure 1: DNR Trust Land Replacement Accounts



Simultaneously, the legislature was struggling with increasing demand for state funding to support school construction to house a growing school population. This demand was beyond what the Common School Trust revenues could support. The legislature also recognized that because demand would be ongoing it was important to preserve the real asset portion of the corpus of the trusts to provide income to future beneficiaries.

In 1989, the legislature created the Trust Land Transfer program to address all these problems while maintaining its trust responsibility to both current and future beneficiaries.

Under the trust land transfer program, "trust lands the legislature has identified as being of state-wide significance deemed appropriate for state park, fish and wildlife habitat, natural area preserve, natural resources conservation area, open space, or recreation purposes"[11] are purchased with general funds appropriated by the legislature and transferred to eligible recipients (local jurisdictions, State Parks, DNR's Natural Areas Program, etc.) for management. The value of the timber is deposited in the beneficiary's current account, and the value of the land transferred is deposited in the RPRA. The legislature then provides a capital budget appropriation from the RPRA with which the department purchases replacement property for the affected trust.

Each biennium the legislature has provided an appropriation with a proviso directing how the department is to make the trust property transfers. In the provisos the legislature has:

1) Limited the appropriation to purchasing Common School Grant lands.
2) Directed the department to use "intergrant exchanges between Common School and other trusts' lands of equal value if the exchange is in the interest of each trust."
3) Suspended the resource management cost account deduction and authorized "all reasonable costs" be paid out of the appropriation. Authorized costs include "the actual cost of appraisals, staff time, environmental reviews, surveys, and other similar costs." Only 2 percent of the monies appropriated from trust land tranfer have been spent on costs.
4) Generally, required that 80 percent of the transferred value must be in timber.
5) Directed the department to "offset transfers of property with low timber-to-land ratios with easements on other properties"
6) Directed that at the end of each biennium, all unused General Fund appropriation for trust land transfer be transferred to the Common School Construction fund.

[11] From 2001-03 Biennial Budget proviso.

Department of Natural Resources, Report to the Legislature: "Options for Increasing Revenues to the Trusts: Comparison of Returns from Investing in Real Property and in Permanent Funds"

Table 3: Trust Land Transfer Property Transfers from FY 1989 through the FY 2002

Agency Receiving property	Timber Value Transferred to Beneficiary	Land Value Deposited in RPRA[12]	ACRES Transferred Out of Trust Status
DNR NAP/NRCA[13]	$207,577,500	$28,558,500	54,226
Washington State Parks & Recreation Commission	70,181,000	25,735,000	14,515
Washington State Dept. of Fish & Wildlife	1,230,000	375,000	302
Local Governments	21,752,000	7,002,000	2,278
Direct into Beneficiary Account (Unused)	14,603,720		
Total	**$315,344,220**	**$61,670,500**	**71,321**

From 1989 through the 2002 biennium, more than $300 million has been deposited directly to trust beneficiaries through the trust land transfer program and more than 71,000 acres have been transferred to non-trust status. See Table 3 and Table 4 for detail on property transfers under the trust land transfer program.

3.d Direct Transfers and Real Property Replacement:

In 1992 the legislature authorized the department, with the approval of the Board of Natural Resources, to directly transfer trust property to public agencies or to resolve trespass and ownership disputes without first going to public auction.

In **RCW 79.01.009** the legislature gave the department the authority to "directly transfer or dispose of real property, without public auction, in the following circumstances: (a) Transfers in lieu of condemnations; (b) Transfers to public agencies; and (c) Transfers to resolve trespass and property ownership disputes."

The legislature required in **RCW 79.01.009** that real property "be transferred or disposed of only after appraisal and for at least fair market value, and only if such transaction is in the best interest of the state or affected trust." When the property in question is non-trust the interest of the state in the transaction would be considered. When trust property is

[12] Includes value of land portion of transfer used to purchase replacement property prior to the creation of the RPRA in 1992.

[13] Department of Natural Resources Natural Area Preserve/Natural Resource Conservation Area

being considered for transfer or disposal the transaction would be approved only if in the best interest of the affected trust.

In keeping with previous legislative direction to maintain the land base managed by the department on behalf of the trusts, the legislature created the Natural Resources Real Property Replacement Account (RPRA) to complete real property transactions without reducing the real property asset base. The legislature directed that funds paid for trust real property transferred by the department under this section be placed in the RPRA and that such funds be used solely for the acquisition of replacement trust property.

In **RCW 43.30.265** the legislature found "that the department of natural resources has a need to maintain the real property asset base it manages and needs an accounting mechanism to complete transactions without reducing the real property asset base." The legislature directed that the RPRA "shall consist of funds transferred or paid for the disposal or transfer of real property by the department of natural resources under **RCW 79.01.009,**" and that funds in the RPRA could "be used solely for the acquisition of replacement real property and may be spent only when, and as, authorized by legislative appropriation."

A summary of the properties sold or transferred out of trust status under the land bank, direct transfer and trust land transfer programs is shown in Table 4.

Table 4: Trust Land Sales & Transfers FY 1989 Through FY 2002

	Acres Disposed	Sale Price	Percent of Total
Part A: Sale Authority			
Land Bank	3,410	$17,362,072	4.13%
Direct Transfer	9,724	$38,645,234	9.20%
Trust Land Transfer	71,320	$362,411,000	86.25%
State Parks Replacement {1}	371	$1,744,300	0.42%
Total	**84,825**	**$420,162,606**	**100.00%**
Part B: Property Type			
Forest - Commercal	893	$6,046,000	1.44%
Forest - Urban/Transition {2}	21,005	$144,846,406	34.46%
Forest - Special Lands {3}	55,696	$257,721,200	61.32%
Other - Special Lands {3}{4}	7,231	$11,679,000	2.78%
Total	**84,825**	**$420,292,606**	**100.00%**
Part C: Trust			
Common School	80,820	$415,399,152	98.84%
Capitol Building	544	$994,600	0.24%
CEPRI {4}	2,962	$549,900	0.13%
Agricultural School	9	$56,500	0.01%
University Original	24	$206,654	0.05%
Forest Board	339	$1,675,300	0.40%
Scientific School (WSU)	127	$1,410,500	0.34%
Community & Tech. College	-	$0	0.00%
Total	**84,825**	**$420,292,606**	**100.00%**

{1} Includes legislatively mandated sales of Forest Board land to State Parks.

{2} Urban lands are located in or near towns and have been determined difficult to manage by the department. Transition lands are resource lands that are converting to other uses and no longer economical to retain for forest management.

{3} Special lands are forest lands with significant features for recreation, habitat, or open space, and that are no longer suitable for fiduciary trust management.

{4} Includes 2,880 acres of grazing land.

Table 5: Replacement Trust Acquisitions FY 1989 through FY 2002

	Acres Acquired	Purchase Price	Percent of Total
Part A: Source of Funding			
Land Bank (RMCA)	42	$21,618,250	17.00%
Direct Transfer (RPRA)	4,753	$32,156,490	25.29%
Trust Land Transfer (RPRA)	32,400	$59,129,886	46.51%
Other appropriations {1}	*1,990*	*$3,239,100*	*2.55%*
Exchange portion of commercial properties {1}	*8*	*$11,001,215*	*8.65%*
Total	**39,193**	**$127,144,941**	**100.00%**
Part B: Property Type			
Forest	37,994	$55,590,686	43.72%
Agricultural	1,154	$2,504,255	1.97%
Commercial	45	$69,050,000	54.31%
Total	**39,193**	**$127,144,941**	**100.00%**
Part C: Trust			
Common School	37,178	$122,555,341	96.39%
Capitol Building	24	$33,000	0.03%
CEPRI	7.07	$146,000	0.11%
Agricultural School (WSU)	0.03	$64,600	0.05%
University (Original)	0.57	$1,254,000	0.99%
Forest Board	1,476	$1,692,000	1.33%
Scientific School (WSU)	-	$0	
Community & Tech. College	507	$1,400,000	1.10%
Total	**39,193**	**$127,144,941**	**100.00%**

{1} These figures are included to account for the acres and funds shown in Tables 10, 11, & 12. Replacement funds from other legislation total $1,692,000; the remaining funds indicate new acquisitions or land exchanges.

3.e Trust Property Replacement:

Regardless of the source of funds - land bank, direct transfer, or trust land transfer; the department uses the same process to acquire replacement trust property. The department first identifies income-generating properties that are suitable for trust management (See Appendix A for acquisition criteria by asset class) and available from a willing seller at a reasonable price. Candidate properties are examined, evaluated, and appropriate candidates for acquisition are presented to the Board of Natural Resources for final approval. The board determines if the purchase is in the best interest of the trust, and approves or rejects the purchase accordingly. If the board approves the acquisition, the department then purchases the property.

A summary of the replacement trust properties purchased by the department is shown in Table 5. Since 1989 the department has purchased $127.1 million in replacement trust property. Of this, $59.1 million was for replacement of properties transferred through the trust land transfer program (RPRA), $32.2 million for replacement of Direct Transfers (RPRA), $21.6 million for replacement of trust property through the Land Bank (Resource Management Cost Account), and $14.2 million were the exchange portion of commercial property acquisitions or from special appropriations. See Table 5 Part A for detail.

The department has used the trust land replacement programs to purchase three types of property; forest, agricultural and commercial. The department's objective is to diversify the trusts' real property holdings without reducing the publicly owned forest land base as directed by the legislature in **RCW 79.08.180** and **RCW 79.66.010**. Of the $127.1 million in trust replacement property purchased by the department since 1989, 44 percent by value has been forest land, 2 percent agricultural land, and 54 percent commercial properties. See Table 5 Part B for detail.

Because the trust land transfer program is limited to Common School Trust lands, and because of the size of the Common school Trust and the location of School lands in rural transition areas, the majority of replacement property purchases have been School Trust lands. (See Table 5 Part C for detail.) The current fund balance of the RPRA and the Land Bank are shown in Table 6.

Table 6: **Current Fund Balance Natural Resource Real Property Replacement Account**

Grant	Millions of Dollars	Percent of Total
Common School	$21.00	91.0%
State University (Orig)	$0.10	0.4%
Scientific University	$1.50	6.5%
Capitol	$0.45	2.3%
Agricultural University	$0.02	0.1%
Total	**$23.07**	**100.0%**

(1) As of August 1, 2002

Chapter 4: Revenue to Beneficiaries

In total the trust lands have generated over $1.7 billion for the beneficiaries during this 14-year period (an averaged $121.1 million per year) since 1989. More than $1.2 billion of that revenue came from timber, land, and other sales while Trust Land Transfer contributed an additional $309.8 million or over 18 percent of all revenues to the beneficiaries. Leases contributed $141.4 million, over 8 percent of the revenues. See Table 7.

Table 7: Revenue to Beneficiaries of Granted Lands from DNR Managed Lands FY 1989 through FY 2002

Source of revenue	Revenue In Millions	Percent of Total
Leases	$141.4	8.3%
Trust Land Transfer	$309.8	18.3%
Timber, Land and Other sales	$1,244.2	73.4%
Total Transferred to Beneficiaries	**$1,695.4**	**100.0%**

Revenues distributed to the granted trust beneficiaries from the trust assets managed by the department for the period 1989 though 2002 are shown in Tables 8 and 9. Table 8 shows the source of the revenue while Table 9 shows the specific trust and fund to which the revenues were distributed. Revenues to individual trusts are shown in Appendix B.

Table 8 shows the growth in lease revenue from irrigated agriculture and commercial real estate due to the diversification of trust holdings into these asset groups. Revenues from irrigated agriculture leases have more than doubled from $1.5 million in 1989 to more than $3.2 million in 2002. Revenue from commercial real estate increased from $0.9 million in 1989 to $5.6 million in 2002, a six-fold increase. While irrigated agricultural and commercial real estate holdings represent a small percent of the land assets portfolio, these data show the positive effect of asset value diversification on sustainable revenue.

Table 8: Revenues Distributed to the Granted Trust Beneficiaries From Granted Trust Assets managed by the Department of Natural Resources By Source

Fiscal Year	Sales				Leases						Other Revenue{3}	Grand Total
	Timber Sales {1}	Transferred Cutting Rights {2}	Trust Land transfer	Land Sales	Agriculture Irrigated	Agriculture Other	Commercial Real Estate	Communication Sites	Mineral and Hydrocarbon	Other leases		
FY1989	$111.0	$0.0	$0.0	$1.0	$1.5	$2.6	$0.9	$0.2	$0.6	$0.8	$1.0	**$119.7**
FY1990	$145.6	$0.0	$57.1	$0.8	$1.4	$2.2	$1.0	$0.3	$0.4	$0.5	$4.9	**$214.1**
FY1991	$91.8	$0.0	$82.3	$0.0	$1.5	$2.3	$1.5	$0.4	$0.5	$0.7	$5.1	**$186.1**
FY1992	$79.7	$0.0	$11.4	$0.2	$1.4	$2.2	$2.1	$0.4	$0.5	$0.9	$0.9	**$99.6**
FY1993	$71.0	$1.2	$35.1	$0.1	$2.0	$2.1	$2.3	$0.5	$0.3	$0.9	$0.1	**$115.7**
FY1994	$52.8	$1.2	$5.1	$0.1	$2.1	$3.1	$2.8	$0.5	$0.5	$0.5	$0.4	**$69.0**
FY1995	$76.0	$2.8	$32.3	$0.2	$1.7	$2.5	$2.2	$0.5	$0.6	$0.5	$0.4	**$119.7**
FY1996	$100.2	$5.7	$0.0	$0.3	$2.2	$3.3	$3.2	$0.6	$0.7	$0.9	$0.6	**$117.5**
FY1997	$109.1	$6.3	$0.0	$0.1	$2.5	$3.3	$3.1	$0.7	$1.3	$1.1	$0.1	**$127.5**
FY1998	$81.4	$5.0	$2.1	$2.5	$2.4	$3.1	$3.5	$0.8	$1.7	$0.8	$0.3	**$103.7**
FY1999	$81.2	$5.0	$19.7	$0.0	$2.4	$3.0	$3.9	$1.0	$1.5	$0.6	$0.1	**$118.5**
FY2000	$77.8	$4.5	$24.7	$0.0	$2.4	$2.6	$4.5	$1.1	$1.6	$0.8	$0.2	**$120.1**
FY2001	$57.4	$3.4	$31.4	$0.2	$2.7	$3.0	$4.5	$1.3	$1.8	$0.6	$0.1	**$106.4**
FY2002	$50.8	$3.4	$8.6	$0.0	$3.2	$2.7	$5.6	$1.6	$0.5	$1.1	$0.2	**$77.7**
Total	**$1,185.9**	**$38.4**	**$309.8**	**$5.5**	**$29.3**	**$38.1**	**$41.0**	**$9.8**	**$12.4**	**$10.8**	**$14.4**	**$1,695.4**

{1} Revenue from timber sales and timber sales related activities

{2} Revenue from timber cutting rights on timber on Forest Board Purchase lands to the Common School, Capitol Building, Normal School, and University Granted Trusts . as payment on the FDA debt to RMCA.

{3} Interest income, Non-trust revenue, Operating transfer, Permits, fees, and miscellaneous

Source: Washington State, Department of Natural Resources Annual Report FY 1989-2001

Totals may not add due to rounding

Table 9: Revenues Distributed to the Granted Trust Beneficiaries From Granted Trust Assets managed by the Department of Natural Resources By Fund

Fiscal Year	Permanent Fund						Current Funds								Grand Total
	School	Normal	Agricultural	Scientific	University	Total Permanent Funds	School Common School Construction Account	Normal Univerities' Capital Projects	Agricultural WSU Bond Retirement	Scientific WSU Bond Retirement	University UW Bond Retirement	CEP&RI CEP&RI Account	Capitol Capitol Building Construc.	Total Current Funds	
FY1989	$1.2	$6.5	$3.9	$3.5	$1.4	$16.4	$86.1	$0.1	$0.0	$0.2	$6.4	$3.3	$7.1	**$103.3**	**$119.7**
FY1990	$1.1	$8.5	$6.2	$6.8	-$0.2	$22.3	$160.6	$0.7	$0.2	$0.5	$9.8	$9.3	$10.8	**$191.9**	**$214.1**
FY1991	$0.5	$5.8	$1.9	$4.2	-$0.5	$11.8	$147.4	$0.6	$0.3	$0.6	$13.5	$5.6	$6.3	**$174.3**	**$186.1**
FY1992	$0.5	$7.2	$4.3	$2.9	$0.8	$15.8	$69.3	$0.0	$0.1	$0.3	$4.4	$4.6	$5.0	**$83.8**	**$99.6**
FY1993	$0.5	$5.5	$1.6	$3.6	$0.7	$11.9	$90.5	$0.1	$0.1	$0.3	$3.8	$3.4	$5.7	**$103.8**	**$115.7**
FY1994	$0.6	$3.5	$0.9	$2.4	$0.4	$7.7	$50.9	$0.1	$0.1	$0.4	$2.4	$5.0	$2.4	**$61.3**	**$69.0**
FY1995	$0.6	$2.3	$1.9	$6.2	$1.0	$12.0	$95.5	$0.1	$0.2	$0.1	$4.5	$2.6	$4.8	**$107.7**	**$119.7**
FY1996	$0.8	$4.5	$5.5	$7.0	$2.1	$19.9	$84.8	$0.1	$0.1	$0.4	$1.8	$5.5	$5.0	**$97.6**	**$117.5**
FY1997	$1.0	$3.7	$4.4	$7.9	$2.8	$19.8	$84.4	$0.1	$0.2	$0.3	$2.5	$12.9	$7.3	**$107.7**	**$127.5**
FY1998	$3.5	$3.3	$3.8	$7.1	$1.2	$19.0	$70.8	$0.1	$0.1	$0.4	$1.5	$5.5	$6.3	**$84.7**	**$103.7**
FY1999	$0.8	$3.4	$3.8	$7.5	$2.0	$17.6	$86.6	$0.1	$0.2	$0.3	$1.8	$4.5	$7.3	**$100.8**	**$118.5**
FY2000	$1.1	$5.4	$2.9	$5.2	$0.8	$15.4	$90.2	$0.1	$0.2	$0.3	$0.3	$5.4	$8.4	**$104.8**	**$120.1**
FY2001	$0.7	$4.3	$1.4	$4.5	$0.6	$11.6	$83.5	$0.1	$0.3	$0.3	$1.1	$3.3	$6.2	**$94.8**	**$106.4**
FY2002	$0.1	$4.1	$1.6	$4.1	$0.9	$10.7	$52.9	$0.1	$0.2	$0.9	$0.5	$4.6	$7.8	**$67.0**	**$77.7**
Total	**$13.0**	**$67.9**	**$44.2**	**$72.9**	**$14.0**	**$212.0**	**$1,253.5**	**$2.3**	**$2.3**	**$5.2**	**$54.4**	**$75.4**	**$90.3**	**$1,483.4**	**$1,695.4**

Source: Washington State, Department of Natural Resources Annual Report FY 1989-2001

Totals may not add due to rounding

$0.0

Chapter 5: Returns on Alternative Investments

In evaluating candidate trust replacement properties the department generally uses two approaches to value: market value and the investment value to the department or "department investment value".

The market value is an estimate of the value at which the candidate property would sell between a typical willing buyer and a typical willing seller on the current market. The estimated market value is determined by either a third party appraiser, or by a department appraiser, or by department staff trained in market investment valuation. Third party appraisals conform to the Uniform Standards of Professional Appraisal Practice (USPAP) and are completed by a state certified real estate appraiser.

Department investment value is an economic valuation of expected cash flow (revenues less costs) from the candidate property if acquired and managed by the department. Similarly, private investors evaluate investment opportunities based on their own unique set of investment criteria. Investment value can be expressed in terms of present value at a target discount rate or as a rate of return on the initial investment.

The department's internal Asset Management Council comprised of executive and senior policy and management staff provides strategic policy direction for the acquisition of each category of state trust lands and the various programs target candidate replacement properties based on these criteria. (See Appendix A "Asset Acquisition and Disposal Criteria" for detail.)

5.a Forest Land Acquisitions:

The Council has adopted the following preferred land characteristics to guide the department in acquiring replacement forest land:

1. While the department manages trust forest lands throughout the state, the investment focus generally is west of the Cascades, and properties that block up with existing state lands.
2. The department seeks properties suitable for long-term commercial forestry, in areas where the surrounding land uses are compatible with forest management.

3. The department seeks forest land with good productivity potential (Forest Soils Index Class I, II or III)
4. Most of the properties acquired are bare ground or have non-merchantable young trees.
5. Properties should meet real investment return of 5 percent or greater[14].

Since 1989 the department has spent $55 million in acquiring over 90 forest land properties as replacement trust lands, comprising almost 38,000 acres. A summary of the results of the investment analysis for forest land acquisitions made by the department since 1989 is shown in Table 10.

Market Valuation: When a forest property is identified as available for acquisition, the department first conducts a preliminary market valuation. The department may request a market appraisal in cases where the department judges that additional expertise is needed to adequately estimate the market value of the property. When a market appraisal is not completed the department does an investment analysis using standard industry assumptions to estimate the current market value of the property in forestry use.

The department uses the same methodology and software to estimate both the market investment value and the department investment value; the only difference is that key assumptions are changed where appropriate. Assumptions that may different between the market investment analysis and the department investment analysis include the discount rate, log values because of export restrictions, rotation age, and the difference between Forest Practices requirements, and the department's Forest Resource Plan and Habitat Conservation Plan (HCP) requirements.

The investment approach is used to estimate market value throughout the forest industry. When used properly, it is fast, accurate, timely, and cost effective. By comparing the results of department market investment analysis to market appraisals the department is able to test the assumptions being used to assure the department's model is giving comparable values to the market appraisal method.

To determine both the market and department investment value of land and immature forest stands, the department uses a computer model called BareInt 9.1. The model projects future costs and revenues for the candidate property if managed for timber production. The projected revenues and costs are based on the productivity of the site, anticipated management activities on the tract, projected growth and yield, and projected

[14] The department's choice of a lower discount rate than used by most private firms has been questioned. The lower discount rate is reflective of the permanent nature of the federally granted trusts and the trustees obligation not to unduly favor present beneficiaries over future beneficiaries. The higher the target rates of return, the less value future revenues are given relative to current revenue in the analysis. Public trust managers therefore generally use a lower discount rate than private organizations, which most often use their cost of capital, adjusted for financial risk. (See page 1, "Endowment Fund Reform and Idaho's State lands: Evaluating Financial Performance of Forest and Rangeland Assets", Wildlife and Range Policy Analysis Group Report No. 21, December 2001. See also Appendix B, Forest Resource Plan, Department of Natural Resources, July 1992)

log prices, harvest costs, and management costs. Future revenues and costs are then discounted back to the present to determine the net present value (NPV) of the projected cash flow for a single rotation.

The model (BareInt 9.1) then expands the NPV of the single rotation to an infinite number of rotations. The result is the estimated investment value of the property given the discount rate, expected management activities, and other assumptions used in the analysis. This is sometimes referred to as a soil or land (and reproduction) expectation value.

In evaluating candidate properties to estimate market investment value, department staff currently apply a real discount rate of 6.5 to 7 percent, an annual 1 percent real increase in both stumpage prices and costs. The assumed management parameters include Forest Practices Rules, and a rotation age of approximately 50 years. Starting log prices are a calculated rolling 24-month average based on both export and domestic log prices which are published monthly by Log Lines, a log price reporting service[15].

The estimated market values of replacement forest lands acquired by the department since 1989 are shown in column (5) of Table 10 with an asterisk (*) for those based on the department's market investment analysis. Market values not marked with an asterisk were based on an appraisal. The estimated market value of forest lands acquired by the department during the study period was $ 61.1 million, (see column (5) of Table 10) while the actual purchase price for those properties, shown in column (4), was $55.0 million.

Department Investment Valuation: The second valuation estimate done by the department is the department investment value. The department investment value is the estimated value of the candidate property to the department if managed for future timber harvests.

In evaluating candidate properties to estimate department investment value, department staff currently apply a real discount rate of 5 percent, and the same annual 1 percent real rate of price and cost increase used in the market investment analysis. The assumed management parameters include Forest Resource Plan policies (including a rotation age of 60 years), the Habitat Conservation Plan restrictions and where applicable Forest Practices Rules. Starting log prices are the same rolling 24-month average used in the market evaluation except based only on domestic log prices because of the log export restrictions.

For those properties with mature timber, the timber is valued at current market value (see column (6) of Table 10). Communication sites, savings specific to the management funds from exterior boundary survey reductions, reduced road cost, the value of improved access to existing trust lands, cost savings due to reduced potential development of the

[15] LOG LINES, P.O. BOX 2215, Mount Vernon, WA 98273

property as single family residents, and other non-timber attributes of candidate replacement properties may add investment value to the property. Examples inclu may include. Other values that were specifically identified for individual replacement forest land acquisitions are included in column (7) of Table 10. In the investment value analysis other values (such as potential communication sites, reduced boundaries, etc.) are treated like mature timber, as a one-time benefit at the time of purchase.

Real vs. Nominal Returns: The department uses real returns and real prices in evaluating its forestry investments since, over long periods of time, changes in price level can distort the rate of return on an investment like forestry. To determine the true rates of return on an investment in purchasing power, the analysis should be net of price change due to inflation.

Nominal or market rates of return are expressed in dollar or nominal terms that include inflationary increases in prices. The difference between real and nominal rates is the rate of inflation. The nominal rate of return equals the real rate of return plus the rate of inflation.

The real rate of return represents the productivity of the asset, in this case timberland, in real terms or the gain in purchasing power. Increases in inflation will increase the nominal rate of return while leaving the real rate unchanged. If inflation were zero then the real rate and the nominal rate would be the same.[16]

Projected Real Returns: A summary of the projected real investment returns is shown in Table 10. The total investment value to the department is the sum of the value of the mature timber (shown in column (6)), and the value of the land, immature timber, and other values (shown in column (7)). The total investment value to the department is shown in column (8) in Table 10. For those purchases made since FY 1989 the total department investment value was $83.7 million; this property was purchased for $55.0 million, which increased the projected present net value of the trust, or trust value by $28.7 million or 52 percent (See Column (9) of Table 10).

The real rate of return to the department on replacement trust forest land is shown in column (10) of Table 10. This is the discount rate at which the investment value is equal to the purchase price of the property. The average projected real rate of return for investments on replacement forest lands acquired by the department since 1989 is 6.0 percent. See bottom of column (10) Table 10.

Impact on Sustainable Harvest: When a property is considered for addition to a managed forest there may be impacts on timber harvest that extend beyond the timber grown on that property. Recall that most of the acres transferred out of trust ownership were off base from harvest and/or presented management challenges to the department. By contrast, the department has targeted forest lands that are easier to manage and fit into

[16] See page 149 of "The Handbook on fixed income securities" Edited by Frank J. Fabozzi (1991)

the trusts' existing working forests and sustainable harvest.[17] Thus, the purchase of replacement forest land not only provides revenues for future beneficiaries from the properties, the purchase of replacement forest land increases current harvest by increasing the sustainable harvest level.[18]

Sustainable harvest will increase if in some ownership groups there is an abundance of acres in some age classes and relatively few acres in other age classes. This means that the harvest may be delayed in age classes where there are relatively more acres in order to sustain the harvest while the age classes with less acres reach the minimum harvest age. By targeting land purchases in areas where the age class distribution is out of balance, the department can release timber for immediate harvest, and provide current revenue to the trust beneficiaries without reducing future harvests.

[17] In **RCW 79.68.040** the legislature directs the department to "manage the state-owned lands under its jurisdiction which are primarily valuable for the purpose of growing forest crops on a sustained yield basis." In **RCW 79.68.030** the legislature defines sustained yield as "harvesting on a continuing basis without major prolonged curtailment or cessation of harvest."

[18] In an unpublished study done by the department in 1999, lands transferred out of trust status reduced the sustainable harvest by 7.9 mmbf/yr. or $2.4 million per year at $300/mbf while replacement lands acquired increased the sustainable harvest by 13.1 mmbf/yr. or $3.9 million per year. The department is currently in the process of recalculating its sustainable harvest.

Table 10: INVESTMENT ANALYSIS OF PROJECTED RETURN ON REPLACEMENT TRUST LANDS ACQUIRED BY THE DEPARTMENT OF NATURAL RESOURCES FOREST LANDS

(1) Date of Acquisition	(2) Seller	(3) Acres	(4) Purchase Price	(5) Market Value {1}		(6) Value of Mature Timber	(7) Investment Value Land & Reprod {2}	(8) Total Investment Value [(8)=(6)+(7)]	(9) Change in Trust Value [(9)=(8)-(4)]	(10) Projected Real Return on Investment	(11) Trust {3}	
Nov-01	Lincoln Timber	120	$ 121,000	$ 121,000	*		$ 182,621	$ 182,621	$ 61,621	5.7%	CS	
Sep-01	Plum Creek	1,293	$ 4,615,000	$ 4,963,444		$ 3,016,676	$ 2,357,864	$ 5,374,540	$ 759,540	5.8%	CS	
Jul-01	Mason Timber	227	$ 235,000	$ 360,464	*		$ 334,523	$ 334,523	$ 99,523	6.5%	CS	
Apr-01	Carlsen	40	$ 115,000	$ 115,000	*		$ 114,151	$ 114,151	$ (849)	5.0%	CS	
Jul-00	Duval	190	$ 380,000	$ 380,000	*		$ 425,500	$ 425,500	$ 45,500	5.4%	CS	
Jul-00	M & R	160	$ 371,000	$ 408,100	*	$ 91,445	$ 279,510	$ 370,955	$ (45)	5.0%	CS	
Jun-00	Southworth	616	$ 3,300,000	$ 3,510,000		$ 1,440,000	$ 2,332,100	$ 3,772,100	$ 472,100	5.4%	CS	
May-00	Hauck	63	$ 215,000	$ 215,000		$ 142,000	$ 240,195	$ 382,195	$ 167,195	5.7%	CS	
Feb-00	Phillips	475	$ 1,950,000	$ 1,942,500		$ 885,000	$ 1,324,571	$ 2,209,571	$ 259,571	5.4%	CS, CC	{4}
Jan-00	Peterson	5	$ 70,000	$ 71,700	*	$ 53,000	$ 29,553	$ 82,553	$ 12,553	5.0%	CS	
Jan-00	Peninsula CC	29	$ 49,000	$ 62,370		$ 14,700	$ 32,829	$ 47,529	$ (1,471)	4.9%	CS	
Sep-99	BCEL	160	$ 600,000	$ 650,000			$ 576,525	$ 576,525	$ (23,475)	4.8%	CS	
Jul-99	Wells	160	$ 170,000	$ 183,700	*		$ 241,000	$ 241,000	$ 71,000	5.9%	CS	
Dec-98	Timber Services	90	$ 126,200	$ 126,500	*		$ 214,000	$ 214,000	$ 87,800	6.4%	CS	
Jan-99	Reid	26	$ 210,000	$ 220,000	*	$ 196,300	$ 56,610	$ 252,910	$ 42,910	6.2%	CS	
Oct-98	Winney	1,424	$ 1,850,000	$ 2,647,000		$ 370,000	$ 1,864,360	$ 2,234,360	$ 384,360	5.3%	CS	
Sep-98	Willapa	530	$ 545,000	$ 559,000			$ 797,110	$ 797,110	$ 252,110	6.0%	CS	
Jun-98	Balmelli	152	$ 113,000	$ 102,500	*		$ 185,543	$ 185,543	$ 72,543	5.9%	CS	
May-98	Weller	7	$ 13,000	$ 29,900			$ 28,962	$ 28,962	$ 15,962	NA	CEPRI	
May-98	Yaun	23	$ 46,000	$ 46,000		$ 16,000	$ 58,900	$ 74,900	$ 28,900	4.4%	CS	
Feb-98	Tri Mountain	160	$ 86,000	$ 87,400			$ 230,000	$ 230,000	$ 144,000	6.6%	CS	
Oct-97	Winkler	81	$ 100,000	$ 152,500			$ 101,100	$ 101,100	$ 1,100	5.0%	CS	
Oct-97	Zulch	56	$ 88,850	$ 126,530			$ 139,444	$ 139,444	$ 50,594	5.8%	CS	
Sep-97	Lou	52	$ 150,000	$ 190,000			$ 203,600	$ 203,600	$ 53,600	4.6%	CS	

Table 10: INVESTMENT ANALYSIS OF PROJECTED RETURN ON REPLACEMENT TRUST LANDS
ACQUIRED BY THE DEPARTMENT OF NATURAL RESOURCES
FOREST LANDS

(1) Date of Acquisition	(2) Seller	(3) Acres	(4) Purchase Price	(5) Market Value {1}		(6) Value of Mature Timber	(7) Investment Value Land & Reprod {2}	(8) Total Investment Value [(8)=(6)+(7)]	(9) Change in Trust Value [(9)=(8)-(4)]	(10) Projected Real Return on Investment	(11) Trust {3}	
Dec-97	Nooksack	523	$ 290,000	$ 290,000			$ 373,100	$ 373,100	$ 83,100	5.4%	CS	
Jun-97	Omak	1,520	$ 1,000,000	$ 1,245,000		$ 280,000	$ 965,000	$ 1,245,000	$ 245,000	5.5%	CS	
Jan-97	Cocke	4	$ 4,200	$ 4,200	*	$ 1,000	$ 5,000	$ 6,000	$ 1,800	6.1%	CS	
Jan-97	Sutterfield	358	$ 1,010,000	$ 1,062,050		$ 29,750	$ 1,608,787	$ 1,638,537	$ 628,537	6.2%	CS	
Oct-96	Back Acres	140	$ 190,000	$ 220,000		$ 88,100	$ 375,470	$ 463,570	$ 273,570	7.1%	CS	
Oct-96	Wolff	41	$ 21,000	$ 21,000		$ 7,000	$ 100,760	$ 107,760	$ 86,760	8.0%	CS	
Jul-96	Aloha - Sumas	1,494	$ 2,200,000	$ 2,382,600		$ 1,250,000	$ 2,624,150	$ 3,874,150	$ 1,674,150	6.7%	CS	
Jun-96	Hefley	27	$ 70,500	$ 82,000		$ 36,000	$ 50,043	$ 86,043	$ 15,543	7.0%	CS	{5}
Apr-96	TWP	110	$ 136,000	$ 140,000			$ 224,200	$ 224,200	$ 88,200	6.0%	CS	{6}
Apr-96	Reed	40	$ 31,000	$ 31,000	*		$ 140,709	$ 140,709	$ 109,709	8.4%	CS	
Jan-96	Beamis	80	$ 171,000	$ 171,000			$ 524,000	$ 524,000	$ 353,000	6.3%	CS	
Dec-95	Aloha Lumber	286	$ 369,200	$ 482,050		$ 91,000	$ 865,500	$ 956,500	$ 587,300	7.1%	CS	{7}
Nov-95	Del Guzzi	165	$ 175,000	$ 179,225		$ 75,725	$ 202,431	$ 278,156	$ 103,156	8.1%	CS	
Aug-95	Cleggov	1,853	$ 2,067,250	$ 2,913,831	*	$ 1,380,900	$ 4,654,792	$ 6,035,692	$ 3,968,442	10.2%	CS	
Jul-95	Seaman	35	$ 47,000	$ 62,400		$ 4,582	$ 52,786	$ 57,368	$ 10,368	5.2%	CS	
Aug-95	Longview Fibre	39	$ 30,000	$ 31,350			$ 121,450	$ 121,450	$ 91,450	7.8%	CS	
Jun-95	Rue Creek	80	$ 851,000	$ 888,300		$ 799,000	$ 180,000	$ 979,000	$ 128,000	7.0%	CS	
Jun-95	Willapa	4,223	$ 10,613,000	$ 11,352,000		$ 6,852,000	$ 16,096,000	$ 22,948,000	$ 12,335,000	8.0%	CS, CB	
Feb-95	Pierce	10	$ 97,750	$ 98,450		$ 86,000	$ 38,232	$ 124,232	$ 26,482	8.2%	CS	
Mar-95	Fall Creek	121	$ 117,000	$ 120,600			$ 396,583	$ 396,583	$ 279,583	7.9%	CS	
Nov-94	Goode	26	$ 120,000	$ 190,000		$ 179,000	$ 32,668	$ 211,668	$ 91,668	7.8%	CS	
Dec-94	So. Wash.	276	$ 729,800	$ 729,590		$ 394,300	$ 558,284	$ 952,584	$ 222,784	5.5%	CS	
Oct-94	Oso	141	$ 210,000	$ 209,150		$ 157,000	$ 253,861	$ 410,861	$ 200,861	6.2%	CS	
Oct-94	Keda	186	$ 103,000	$ 123,600		$ 42,000	$ 249,124	$ 291,124	$ 188,124	7.5%	CS	
Aug-94	Rodway	10	$ 6,000	$ 6,000			$ 20,156	$ 20,156	$ 14,156	7.1%	CS	
Jun-94	Forks	1,676	$ 2,200,000	$ 2,216,000		$ 690,000	$ 3,012,733	$ 3,702,733	$ 1,502,733	6.2%	CS	
Jun-94	Johnson	40	$ 20,000	$ 20,100			$ 30,058	$ 30,058	$ 10,058	5.7%	CS	

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(1) Date of Acquisition	(2) Seller	(3) Acres	(4) Purchase Price	(5) Market Value {1}		(6) Value of Mature Timber	(7) Investment Value Land & Reprod {2}	(8) Total Investment Value [(8)=(6)+(7)]	(9) Change in Trust Value [(9)=(8)-(4)]	(10) Projected Real Return on Investment	(11) Trust {3}	
Feb-94	E Big Lake	212	$ 208,000	$ 209,185			$ 208,000	$ 208,000	$ -	5.0%	CS	
Feb-94	Mashel	50	$ 31,500	$ 31,825		$ 10,500	$ 55,406	$ 65,906	$ 34,406	6.7%	CS	
Feb-94	Debriae	68	$ 200,000	$ 213,566		$ 169,400	$ 44,166	$ 213,566	$ 13,566	5.6%	CS	
Nov-93	Kurtz	160	$ 112,000	$ 115,200			$ 194,963	$ 194,963	$ 82,963	6.0%	CS	
Apr-93	ITT	2,259	$ 1,300,000	$ 1,330,000		$ 155,000	$ 1,175,000	$ 1,330,000	$ 30,000	5.0%	CS	
Feb-93	Shaudys	20	$ 22,250	$ 23,000	*		$ 22,250	$ 22,250	$ -	5.0%	CS	
Feb-93	Meek	240	$ 92,000	$ 94,000			$ 92,000	$ 92,000	$ -	5.0%	CS	
Jan-93	Peninsula	309	$ 605,000	$ 605,000			$ 605,000	$ 605,000	$ -	5.0%	CS	
Oct-92	Hammond	20	$ 13,800	$ 14,950			$ 13,800	$ 13,800	$ -	5.0%	CS	
Apr-93	McCain	30	$ 19,500	$ 20,250			$ 19,500	$ 19,500	$ -	5.0%	CS	
Mar-93	Plum Creek	75	$ 23,004	$ 25,250			$ 54,600	$ 54,600	$ 31,596	6.5%	CS	
Jul-92	Zuvich	47	$ 44,000	$ 49,400			$ 62,430	$ 62,430	$ 18,430	5.6%	CS	
May-92	Shaudys	87	$ 133,000	$ 141,700		$ 84,000	$ 141,700	$ 225,700	$ 92,700	6.9%	CS	
Mar-92	Olson	462	$ 201,500	$ 219,300			$ 369,413	$ 369,413	$ 167,913	6.1%	CS	
Jan-92	Willapa	92	$ 48,205	$ 44,620			$ 59,984	$ 59,984	$ 11,779	5.4%	CS	
Oct-91	Meek	472	$ 225,000	$ 225,000			$ 317,000	$ 317,000	$ 92,000	5.6%	CS	
Jun-91	Plum Creek	448	$ 2,100,000	$ 3,135,000		$ 1,951,000	$ 156,800	$ 2,107,800	$ 7,800	5.1%	CS, FB	{8}
Jun-91	TAT USA	5,128	$ 6,250,000	$ 6,672,000		$ 2,672,000	$ 4,014,000	$ 6,686,000	$ 436,000	5.2%	CS, FB	{9}
Jun-91	Bridgewater	200	$ 300,000	$ 285,800		$ 108,000	$ 361,200	$ 469,200	$ 169,200	6.1%	CS	
Apr-91	NDC	992	$ 540,192	$ 545,000			$ 517,200	$ 517,200	$ (22,992)	4.9%	CS	
Apr-91	Kilgore	40	$ 14,500	$ 17,320			$ 24,800	$ 24,800	$ 10,300	5.9%	CS	
Apr-91	Golden Spring	440	$ 306,000	$ 320,000			$ 383,675	$ 383,675	$ 77,675	5.4%	CS	
Mar-91	Zepp	276	$ 205,000	$ 208,000			$ 257,000	$ 257,000	$ 52,000	5.4%	CS	
Feb-91	Thayer	47	$ 14,000	$ 17,600			$ 20,800	$ 20,800	$ 6,800	5.7%	CS	
Nov-90	Jorgensen	252	$ 126,000	$ 132,000			$ 168,000	$ 168,000	$ 42,000	5.5%	CS	
Feb-90	Doubek	125	$ 74,350	$ 77,850			$ 74,350	$ 74,350	$ -	5.0%	CS	
Jun-90	Golden Spring	1,631	$ 705,350	$ 1,065,000			$ 725,806	$ 725,806	$ 20,456	5.1%	CS	
Feb-90	DaPaul	985	$ 390,400	$ 459,000			$ 731,200	$ 731,200	$ 340,800	6.1%	CS	

Table 10: INVESTMENT ANALYSIS OF PROJECTED RETURN ON REPLACEMENT TRUST LANDS ACQUIRED BY THE DEPARTMENT OF NATURAL RESOURCES FOREST LANDS

(1) Date of Acquisition	(2) Seller	(3) Acres	(4) Purchase Price	(5) Market Value {1}	(6) Value of Mature Timber	(7) Investment Value Land & Reprod {2}	(8) Total Investment Value [(8)=(6)+(7)]	(9) Change in Trust Value [(9)=(8)-(4)]	(10) Projected Real Return on Investment	(11) Trust {3}	
Dec-89	Three Rivers	2,966	$ 2,271,700	$ 2,271,700	$ 204,000	$ 2,625,564	$ 2,829,564	$ 557,864	5.4%	CS	
Dec-89	Rulien	79	$ 28,000	$ 25,400 *		$ 40,700	$ 40,700	$ 12,700	5.7%	CS	
Total		**37,853**	**$55,003,001**	**$61,136,020**	**$24,022,378**	**$ 59,642,755**	**$ 83,665,133**	**$ 28,662,132**	**6.0%**		**{10}**

{1} Appraised values include 3rd party commercial appraisers and market valuations prepared by DNR appraisal staff. Values determined by investment analysis are marked with an asterisk (*).

{2} Values for investment analysis considered DNR management constraints in existence at the time of purchase and expected rates of return from 5% to 7% .

{3} CS = Common School, CEPRI = Charitable, Educational, Penal & Reformatory Institutions; FB = Forest Board; CB = Capitol Building, CC = Community & Technical College Reserve

{4} This puchase includes 25 acres valued at $200,000 acquired for the community college trust. That portion is technically not replacement property, but is included here

{5} Purchase includes $32,100 from RMCA for acquisition of a right of way.

{6} Purchase includes $32,000 from RMCA for acquisition of a right of way.

{7} Purchase includes $23,000 from RMCA for acquisition of a right of way.

{8} Purchase includes 100 acres valued at $235,000 to replace Forest Board property sold to State Parks per special legislation.

{9} Purchase includes 482 acres valued at $1,200,000 acquired for the community college trust, and 1376 acres valued at $1,457,000 acquired for the Forest Board.

{10} Average return on investment of based on weighted average. Figures were not available for every transaction.

5.b Agricultural Land Acquisitions:

The department's Asset Stewardship Council has developed the following set of characteristics to guide the department in acquiring agricultural lands[19]:

1. The investment focus for agricultural holdings is east of the Cascades.
2. The department seeks properties in strongly established diverse agricultural areas zoned for agricultural uses and prefers to avoid speculative markets or products.
3. Since properties are leased, they must be sufficiently productive and appropriately located to attract desirable lessees and allow them to make reasonable returns for themselves and the trusts.
4. Initial capitalization rates and internal rate of return should be commensurate with the land use.
5. Risk needs to be commensurate with probable returns. There is a traditional relationship between returns and risk. Given the long-term nature of the trusts and the common law duties of a trustee, the department avoids high-risk transactions.
6. To reduce market risk in this category of assets, the department is interested in diversity among the holdings, seeking a distribution of properties in diverse agricultural communities, precipitation zones and commodity markets, with an emphasis on crops that yield a higher profit per acre.
7. The department has identified specific characteristics for lands it would prefer to acquire for irrigated farming, dry land farming, and grazing use.

Irrigated agricultural lands preferable for acquisition are characterized as having good soils, slopes and an adequate growing season coupled with an adequate source of irrigation water. Preferred properties are served by a self-contained, independent (certificated/permitted) water source and delivery system(s), or located in an irrigation district that, in either case, can be managed and leased as an independent unit.

Dryland agricultural lands preferable for acquisition are characterized as having adequate soils and rainfall, and a proven track record in wheat and other dryland agricultural crop production.

Grazing lands preferable for acquisition are characterized as having healthy plant communities, access to stock water and water rights, multiple use and alternative use potential.

[19] See Appendix A for Asset council's "Asset Acquisition and Disposal Criteria."

Farmland investments have shown the potential for solid profits. According to a study by the California Public Employees Retirement System, returns on farmland, including income from crop sales and appreciation in land values more than held their own between 1970 through the end of the study period in 1998[20].

Since 1989 the department has acquired seven agricultural properties containing more than 1,100 acres valued at $2.5 million as replacement trust lands. A summary of these acquisitions is shown in Table 11. These purchases have consisted of lands with row crop, orchard and vineyard potential.

Investment analyses on agricultural property that are candidates for acquisition are based on projected cash flow in real dollars from the lease of the property. The department generally leases orchard and vineyard properties on a percent of the value of the harvest. The investment analyses are based on current prices. Orchard and vineyard crops start producing revenue from three to four years after planting and may not reach full production for three to five additional years. Because of these factors there usually is a significant start up period before full revenue production occurs which is factored into the analysis. It is important to note that the start up period for agriculture is significantly shorter than the length of a forest rotation, but longer than that for commercial properties.

Generally any improvements needed to prepare the property for planting are the responsibility of the lessee. Where capital improvements such as wells or irrigation lines will be paid by the state, these costs are included in the investment analysis and paid out of a capital appropriation from management funds.

The investment analysis is done for the length of the lease. The analysis assumes that the property reverts to the state unencumbered at the end of the lease period (with the exception of authorized leasehold improvements such as trees or vines). The reversion is valued at the current value of agricultural land for the anticipated crop. At the end of the lease the department may release the site for similar agricultural production, pursue leasing the property for a higher valued crop, or sell the property.

Based on the investment analysis done at the time the properties were acquired, they have a projected real return on investment averaging 10.5 percent. See Column (8) of Table 11.

Three of the four properties purchased prior to 1997 have been converted to orchard or vineyard. The fourth is currently under lease for row crops. Together these four

[20] The California Public Employees Retirement System (CalPERS) commissioned the study two years ago. CalPERS has decided to invest in the wine grape business. In partnership with a private investment firm, CalPERS will purchase land and develop vineyards in California, Washington and Oregon. Eighty percent of the $100 million investment will be in Napa, Sonoma, Mendocino and potentially the central Coast, with the remaining $20 million destined for vineyards in Washington and Oregon.

properties are currently producing $215,105 per year or a 13 percent yield on the original purchase price for those four properties.

"Andersen" was planted to wine grapes in 1997 and 1998 and is nearing full development. Current annual rent is 21 percent of the original purchase price.

"Val-Roz-Jenks" was planted to orchard in 1997 and 1998. The183 acres are now nearing full production. Current annual rent is 8 percent of the original purchase price.

"McQuery" is currently in interim use of irrigated crops of alfalfa hay, and corn. It has potential for conversion to apples or vineyards in 2004 or 2005. The current rent is 3.2 percent of the purchase price.

"Walla Walla" had its first planting of wine grapes in 2000. This planting has not yet entered production. Revenue is projected to increase to $16,000 per year at full production in 2005. An additional 40 acres suitable for grapes are under lease, 20 acres were planted this fall and the remaining 20 acres are to be planted next year. In addition the department has established a 40-acre wildlife reserve on the property.

The department recently purchased three new properties in the Goose Gap area – Davis, Szymczak, and Johnson. Davis currently is used to grow irrigated row crops. Conversion to grapes would release enough water to irrigate both Szymczak and Johnson. These properties are located near or adjacent to existing state lands under lease for wine grape production, and have excellent potential grape production. The department is currently negotiating with potential lessees.

The potential revenue from all the agricultural properties acquired by the department since 1989 is more than $420,900 per year or 16.8 percent of the original purchase price.

Table 11: INVESTMENT ANALYSIS OF PROJECTED RETURN ON REPLACEMENT TRUST LANDS ACQUIRED BY THE DEPARTMENT OF NATURAL RESOURCES AGRICULTURAL LANDS

(1) File	(2) Property Name	(3) Purchase Date	(4) Use at Time of Acquisition	(5) Acres Acq	(6) Total Purchase Price	Appraised Value {6}	(7) Purchase Price Per Acre	(8) Projected Real Return on investment {1}	(9) Current Use	(10) Current Income	(11) Current yield	(12) Potential Income	(13) Potential yield	(14) Trust {5}	
72946C	Davis	Dec-01	Agriculture	145	$598,125	-	$4,125	9.9%	Irrigated Ag	$10,427	1.7%	$56,000	9.4%	CS	{2}
72946B	Goose Gap	Nov-01	Agriculture	5	$16,000	-	$3,200	9.9%	Undeveloped	$0	0.0%	$2,000	12.5%	CS	{2}
72946A	Johnson	Sep-01	Agriculture	65	$208,000	-	$3,200	9.9%	Undeveloped	$0	0.0%	$24,800	11.9%	CS	{2}
100	Goose Hill	Jul-97	Grazing	120	$48,000	-	$400	10.0%	Vineyard/wildlif	$0	0.0%	$32,000	66.7%	CS	{3}
094	McQuery	Dec-96	Irr. Row Crops	237	$497,490	$575,000	$2,102	11.7%	Irrigated Ag	$15,924	3.2%	$63,600	12.8%	CS	{2}
080	Val-Roz-Jenks	Sep-95	Irr. Row Crops	190	$320,000	$340,000	$1,684	12.0%	Orchard	$25,754	8.0%	$67,500	21.1%	CS	
082	Andersen	Sep-95	Row Crops	392	$816,640	$860,000	$2,081	9.7%	Vineyard	$173,000	21.2%	$175,000	21.4%	CS	{4}
	Total			**1,154**	**$2,504,255**		**$2,170**	**10.5%**		**$225,105**	**9.0%**	**$420,900**	**16.8%**		

{1} Estimated return at time of purchase
{2} waiting for conversion to Orchard or vineyar
{3} the Department was able to reallocate unused water to this site. Improved access to existing trust property. Potential for development of a Cellular tower on the site. Reduces potential development of inholding.
{4} Original projection was based on orchard. Actual conversion was to vineyard. Current revenue is about twice what was originally projected.
{5} CS = Common School
{6} Where appraised value is not shown, price is based on internal investment valu

5.c Commercial Properties Acquisitions:

The department's Asset Stewardship Council has developed the following set of characteristics to guide the department in acquiring commercial properties[21]:

1. The department acquires commercial real estate assets in order to achieve immediate attractive revenue streams for the trusts and diversify a portfolio, which is dominated by timber assets.

2. The department seeks institutional grade investments that will generate stable income with low to moderate levels of risk because of the long-term nature of the trusts and the duties of a trustee.

3. The department avoids single or multi-family residential investments, out of state investments and high-risk properties or tracts with high management costs.

4. Instead, the preferred acquisitions are commercial properties with well-constructed high quality buildings, with appreciation potential and reliable commercial or retail tenants.

In 1984 the legislature authorized the department to dispose of unmanageable (nonresource) trust land in urban areas and acquire replacement properties for income production. In the 1988 Transition Lands Policy Plan and the Asset Stewardship Plan, the Board of Natural Resources affirmed the importance of asset value diversification and the role of the commercial real estate asset class in a balanced portfolio. The board has made the acquisition of commercial lands an important component of the department's strategy to diversify the Trusts' assets.

The objective of the department's commercial lands program is to use the exchange, land bank, real property replacement, and other tools given the department by the legislature to identify and convert non-revenue generating, high value uplands (transition land) into a dependable and long-term revenue stream for the trusts. To achieve this objective the department seeks appropriate commercial real estate for exchange or acquisition that provides:

1. Stable annual current revenue
2. Potential for attractive long term yields through appreciation, and

[21] See Appendix A for Asset council's "Asset Acquisition and Disposal Criteria."

3. Diversification of the current portfolio.

Because of the size of each acquisition, the department contracts with independent third-party appraisers on each acquisition to value the department's investments in commercial properties at the time of purchase. These professional appraisers rely on several techniques to establish market value, including the investment value analysis or what the appraisers call the income capitalization approach to value.

In the income capitalization approach, the appraiser projects the current and future income and expenses associated with the property over a holding period, generally assumed to be 10 years for commercial properties. The assumptions used depend on the characteristics of the property and market conditions in the area and any existing or proposed lease language**.** Increases in market rents are projected based on expected market conditions and lease terms and generally are expected to keep pace with inflation.

Cost allowances for leasing commissions and new tenant remodeling alterations are included in the appraiser's expense assumptions. These costs are paid for out of the resource management cost account (RMCA). The tenant pays ordinary expenses for repairs and maintenance of the properties.

The sale value of the property at the end of the 10-year period (reversion) is estimated based on expected growth in the rents and the remaining useful life of the property. The return on investment is based on the annual net cash flow and reversion value of the subject property. The department's planned exit strategy for when to sell a particular investment uses a typical 10-year holding period as a guide, however the actual disposal date will depend on market conditions.

The expected return for each project is shown in column (11) of Table 12. The weighted (weighted by the size of the project) average expected return on investment for all the projects is 10.1 percent. This is a nominal return and must be adjusted for the expected rate of inflation to make it comparable to the expected returns on forest and agricultural land investments. (See Table 16.)

Since 1989, the department has purchased seven commercial properties at a total purchase cost of just over $69 million. See Table 12 for detail. The weighted average initial yield (initial rent divided by the purchase price) on these properties was 8.7 percent (bottom of column (8)). The average current yield (current rent divided by the initial purchase price) is 9.3 percent (bottom of column (10)). This return should increase as the properties appreciate in value and the rents are renegotiated, typically on a three to five year cycle.

Table 12: INVESTMENT ANALYSIS OF PROJECTED RETURN ON REPLACEMENT TRUST LANDS ACQUIRED BY THE DEPARTMENT OF NATURAL RESOURCES COMMERCIAL PROPERTY ACQUISITIONS

As of June 2002

(1) File Number	(2) Name of Property	(3) Date Acquired	(4) Acres Acquired	(5) Appraised Value at time of Acquisition	(6) Purchase Price	(7) Initial Annual Rent	(8) Initial Yield	(9) Current Annual Rent	(10) Current Yield	(11) Projected Nominal Return on investment	(12) Trust {7}	
72712	Walgreen Store Mukilteo, WA	02/05/02	2.50	$5,400,000	$5,400,000	$442,800	8.2%	$446,000	8.2%	8.2%	CS, SS, CEPRI, Univ	{2}
71666	Fred Meyer Parcel Issaquah, WA	04/03/01	12.00	$15,000,000	$15,000,000	$1,185,000	7.9%	$1,177,322	7.8%	8.7%	CS	{3}
70793	Creekview Building Bothell, WA	01/05/99	4.21	$7,000,000	$7,000,000	$602,000	8.6%	$602,000	8.6%	11.0%	CS	{4}
054	Boulevard Center Tacoma, WA	06/07/94	8.60	$17,300,000	$17,300,000	$1,557,000	9.0%	$1,638,115	9.5%	10.5%	CS	
051	Kmart Store Wenatchee, WA	12/01/92	9.01	$6,450,000	$6,450,000	$622,425	9.7%	$622,698	9.7%	10.0%	CS	
050	I-90 Lake Place Issaquah, WA	10/02/90	8.27	$17,900,000	$17,900,000	$1,611,000	9.0%	$1,928,000	10.8%	11.0%	CS	{5}
Total			**44.59**		**$69,050,000**	$6,020,225	**8.7%**	**$6,414,135**	**9.3%**	**10.1%**		

{1} Rent (above) are net of expenses to the lessee.
{2} Transaction involved $4,187,000 cash and $1,213,000 of Trust Land exchange parcels.
{3} Transaction involved $8,008,496 cash and $6.991,504 of Trust Land exchange parcels.
{4} Transaction involved $4,300,000 cash and $2,700,000 of Trust Land exchange parcels.
{5} Transaction involved $10,000,000 from land bank and $7,900,000 from Park Land Trust revolving fund.
{6} Percent shown in Total row are wieghted average of all projects
{7} CS = Common School, SS = Scientific School (WSU), CEPRI = Charitable, Educational, Penal and Reformatory Institutions, Univ = University-Original (UW).

5.d Permanent Fund Investments:

The five permanent funds established at statehood are the Common School, Normal School, Agricultural, Scientific University, and State University permanent funds. These Trust funds support the following educational institutions, respectively, the common schools, the state's four regional universities, Washington State University (both Scientific and Agricultural) and the University of Washington. There are no permanent funds for the CEP&RI, Capitol, or forest board trusts. Revenues from the sale of land and nonrenewable resources from the portion of the CEP&RI designated for support of the University of Washington are deposited in the University Permanent Fund.

Permanent funds are non-expendable trust funds in which the investment principal (corpus) remains intact as required by Washington's Enabling Act, State laws and regulations; only investment earnings can be distributed to the beneficiaries. By law, the assets of the permanent funds are invested in fixed income securities and short-term holdings with the exception of the Common School Permanent Fund, a portion of which may be invested in equities[22]. Currently less than 5 percent of the Common School's Permanent Fund or 1 percent of all the Permanent Funds' assets are invested in the U.S. Equity Market Index Fund.

Some terms commonly used in fixed income investments are listed below along with their definitions as used in this report[23]:

1. Issuance – A bond's date of issuance is the date on which the bond is created.
2. Maturity – A bond's maturity date is the date on which the agreement will cease and the issuer will redeem the security by returning the par value to the investor. The life of a bond is the time from issuance until the date of maturity.
3. Par value – A bond's value that will be returned to the bondholder at maturity[24].
4. Coupon return – A bond's coupon return is the fixed annual interest payment made to the owner during the life of the bond[25]. The coupon rate is the rate of interest that, when multiplied by the par value of the bond, provides the dollar value of the coupon return.

[22] See AGO 1999 No. 3

[23] See "The handbook of Fixed Income Securities" by Frank J. Fabozzi et al for a comprehensive reference to fixed income securities. The material in this section draws heavily from this handbook.

[24] Repayment of principal usually occurs at maturity but bonds may be structured such that repayment occurs at different times during the life of the security in which case, the book value is the uncollected portion of the principle. In the examples used in this report the principal is assumed due and paid at maturity unless otherwise stated.

[25] While the periodic coupon payments can be made over any time period during the year (weekly, monthly, quarterly, semiannually, or annually), most bonds issued in the United States pay coupon interest semiannually. The coupon payment is assumed to be annual in this report unless otherwise stated. Valuations are assumed to be at the beginning of the period.

5. Market value – This value is the expected sales price of a fixed income security if it were to be sold at a point in time prior to maturity.
6. Market interest rate – The interest rate or discount rate that results in the present value of the expected cash flow of a fixed income security that is equal to its market value.

Fixed income securities are called fixed because the coupon rate is fixed over the life of the security. For example, for a 10-year $10,000 bond with a coupon rate of 5 percent, the investor pays $10,000 to purchase the bond; the issuer is obligated to pay 5 percent annual rent for the use of the $10,000 or $500 per year for ten years. At the end of the 10 years when the bond matures the investor receives back the principal or par value (in this case $10,000).

A basic rule of fixed income securities is that interest rates[26] and the market value of fixed income securities move in opposite directions. To understand why, suppose an investor purchases the bond described in the example above. Now suppose that market interest rates for this type of security increases to 7 percent immediately after the bond is issued and purchased by the initial investor. A potential fixed income investor can now get $700 per year rent for their $10,000. If the initial investor in this example wants to sell the bond with a coupon return of $500, new investors will not buy it at its original investment value, the bond will sell at a discount. In this example the market value of the bond with a ten-year term remaining and a 5 percent coupon yield will drop to $8,595.28 when interest rates increase to 7 percent.

Assume now our investor takes advantage of the higher interest rates and purchases a second 10-year $10,000 bond with a coupon rate of 7 percent. If the market interest rates goes back down to 5 percent then the market value of the first bond with the coupon return of $500 returns to $10,000, and the market value of the second bond with a remaining live of ten years and a coupon return of $700 will increase in market value to $11,544.35.

Recall that the par value of both bonds is $10,000 so as the two bonds mature their market values will converge at $10,000[27]. This is because as the bonds mature, less and less of the market value is attributable to coupon return and more and more is attributable to the reversion value, which for both bonds is $10,000. Changes in market interest rates will result in much larger changes in market value for bonds with longer remaining lives than for otherwise identical bonds with closer maturity dates.

[26] Often "the" interest rate is referred to as if there is a single market interest rate. However, from the financial markets it is clear that not one but thousands of rates exist at any point in time. Each homogeneous security group with identical maturities has its own interest rate.

[27] The "time path of the market value of a bond" is towards its par value as a bond approaches its maturity date. The market value for a bond selling at a premium or a discount will not remain constant over time. For a bond selling at a discount, as the bond moves toward maturity, its market value will increase assuming the market rate of interest remains constant. For a bond selling at a premium, as the bond moves towards maturity, its market value will fall assuming the market rate of interest remains constant.

The total performance or return on the permanent fund is made up of three parts: coupon, realized capital gains and losses, and price returns where:

a. **Coupon return** is the return associated with the coupon payment on a bond certificate held by the fund. Coupon returns generally are distributed to the beneficiaries of the permanent funds as they are earned.
b. **Realized capital gains and losses** are the return related to either increases or decreases in the principal at the time the bond matures or is sold.
c. **Price return** is the change in market value of bonds held by the fund. Changes in market value are primarily the result of interest rate movements and spread changes, changes in perceived risk and changes in the remaining life of the bond. Price returns are only distributed to beneficiaries if they are realized when the bond is sold prior to its maturity date.

The total performance on the permanent funds is shown in Table 13. The revenues distributed to beneficiaries or beneficiary returns are shown in Table 14.

The major difference between total return shown in Table 13 and beneficiary return shown in Table 14 is the price return, since price returns are not distributed to permanent fund beneficiaries unless the security is sold.

The price return is due to changes in the market value of existing bonds in the fund's portfolio, due primarily to changes in interest rates. Over time as a bond approaches its maturity date, its market value approaches its book value, so price returns are only realized if the bond is sold before its maturity date. If the bond is sold prior to maturity it will be at a premium if current interest rates are lower than the coupon rate but the fund forgoes higher coupon returns in the future that would have been realized had the bond been held to maturity. Bonds may also be sold at a discount in which case, the fund may avoid lower coupon returns in the future.

When the bond is sold at a premium, the difference between the par and market value may be distributed to the beneficiaries and is included in beneficiaries' returns. When a bond is sold at a discount, future earnings must be retained to restore the corpus of the fund. Typically bonds in the permanent funds are held until their maturity and the sales price is equal to the book value of the security, so no adjustment is needed.

During periods when the general level of interest rates is falling as occurred between FY 1993 and 2002, the price return is positive. During periods when the general level of interest rates is rising, the price return will be negative. Over interest rate cycles, gains and losses due to price returns will tend to offset each other.

Usually the market return is used to compare fixed investment with alternative investments, but since price returns are unrealized by the beneficiary, the beneficiary

return is the best measure of return on investment to the beneficiary from the permanent fund.

Actual beneficiary returns on the permanent funds for the 1989 to 2002 period are shown in Table 14. The weighted average rate of return for all funds over this period ranged from a low of 6.1 to a high of 7.8 percent. The average for the period was 6.8 percent.

A major characteristic of the permanent funds is that the permanent fund corpus is fixed in dollar terms and all of the coupon earnings are distributed to beneficiaries. Inflation erodes the purchasing power of the principal portion of the investment so the permanent fund corpus shrinks in purchasing power.

To be a meaningful representation of the real gains to beneficiaries, returns should be adjusted for the loss in purchasing power. Consider an investor who has placed $10,000 in a bond earning a return of 7 percent. At the end of a year the investor has $10,700, a 7 percent increase on the dollar investment. If however, the price level has increased by 3 percent during the year (i.e. 3% inflation), then the net increase in purchasing power of the investment would be 4 percent. The 7 percent return in dollar terms is called the nominal return. The 4 percent increase in purchasing power is called the real return since it measures the real gain in purchasing power of the investment.

By definition, the nominal rate of return equals the real rate of return plus the rate of inflation. If inflation were zero then the real rate and the nominal rate would be the same[28].

To make the return on the permanent funds comparable with the real rate of return on trust land purchases the permanent fund return must be shown in terms of real purchasing power. The loss in purchasing power of the corpus of the trusts due to inflation is shown in table 15. The weighted average loss in purchasing power of the permanent funds over the period was 3.1 percent, resulting in an average real return of 3.7 percent on the permanent funds. See Tables 15 and 16.

[28] See page 149 of "The Handbook on fixed income securities" Edited by Frank J. Fabozzi (1991)

Table 13: Total Nominal Return on Permanent Funds

Fiscal Year	Common School			Normal School			Agricultural			Scientific University			State University		
	Market Value (1)	Total Return (2)	% Total Return (3)	Market Value (1)	Total Return (2)	% Total Return (3)	Market Value (1)	Total Return (2)	% Total Return (3)	Market Value (1)	Total Return (2)	% Total Return (3)	Market Value (1)	Total Return (2)	% Total Return (3)
1993	$143,483,312	$17,648,447	12.3%	$155,520,351	$15,552,035	10.0%	$76,654,905	$7,588,836	9.9%	$94,545,178	$9,643,608	10.2%	$10,126,339	$1,134,150	11.2%
1994	$135,986,988	-$1,767,831	-1.3%	$153,817,225	-$2,307,258	-1.5%	$61,083,717	-$916,256	-1.5%	$93,896,169	-$1,314,546	-1.4%	$11,770,595	-$223,641	-1.9%
1995	$147,231,660	$19,729,042	13.4%	$165,843,807	$21,891,383	13.2%	$80,110,174	$10,814,873	13.5%	$105,683,502	$13,738,855	13.0%	$13,987,442	$1,902,292	13.6%
1996	$144,516,942	$7,514,881	5.2%	$165,624,758	$8,943,737	5.4%	$82,566,672	$4,458,600	5.4%	$110,700,428	$5,756,422	5.2%	$15,307,135	$780,664	5.1%
1997	$148,109,105	$12,441,165	8.4%	$171,403,342	$14,569,284	8.5%	$87,810,612	$7,551,713	8.6%	$120,190,810	$10,216,219	8.5%	$17,692,585	$1,486,177	8.4%
1998	$159,117,875	$17,662,084	11.1%	$183,078,295	$20,138,612	11.0%	$96,160,575	$10,385,342	10.8%	$132,825,066	$14,477,932	10.9%	$19,868,113	$2,125,888	10.7%
1999	$155,648,356	$4,046,857	2.6%	$179,551,987	$4,309,248	2.4%	$115,712,026	$2,661,377	2.3%	$135,750,715	$3,122,266	2.3%	$20,703,461	$600,400	2.9%
2000	$150,561,597	$5,570,779	3.7%	$182,122,729	$7,467,032	4.1%	$114,702,972	$4,588,119	4.0%	$136,270,029	$5,041,991	3.7%	$21,156,883	$867,432	4.1%
2001	$159,938,107	$17,433,254	10.9%	$191,744,451	$21,667,123	11.3%	$137,133,711	$15,770,377	11.5%	$145,958,936	$15,763,565	10.8%	$22,342,090	$2,502,314	11.2%
2002	$163,486,502	$13,732,866	8.4%	$201,486,521	$18,939,733	9.4%	$140,810,235	$11,828,060	8.4%	$154,847,124	$15,639,560	10.1%	$23,769,889	$2,424,529	10.2%
Average FY 1993-02		$11,401,155	7.5%		$13,117,093	7.4%		$7,473,104	7.3%		$9,208,587	7.3%		$1,360,021	7.6%

(1) Market Value at end of Fiscal Year Source : Washington State Investment Board

(2) Total Return is calculated by multiplying (1) times (3)

(3) Percent Total Performance Return Source: Washington State Investment Board (unavailable prior to 1993) Negative returns to all the permanent funds in FY 1994 are the result of negative price returns that year.

Table 14: Beneficiary Nominal Return on Permanent Funds

	Common School			Normal School			Agricultural			Scientific University			State University		
Fiscal Year	Market Value (1)	Distri-bution (2)	% Distri-bution Return (3)	Market Value (1)	Total Return (2)	% Total Return (3)	Market Value (1)	Total Return (2)	% Total Return (3)	Market Value (1)	Total Return (2)	% Total Return (3)	Market Value (1)	Total Return (2)	% Total Return (3)
1989	$115,376,000	$7,668,402	6.9%	$109,893,000	$8,865,207	8.4%	$53,006,000	$4,077,224	8.2%	$68,970,000	$5,191,078	7.9%	8,087,000	589,446	7.5%
1990	$119,060,000	$7,964,369	6.8%	$131,534,000	$9,957,694	8.2%	$64,289,000	$4,617,987	7.9%	$76,929,000	$5,839,015	8.0%	8,702,000	624,525	7.4%
1991	$124,250,000	$8,207,628	6.7%	$134,886,000	$11,041,258	8.3%	$65,826,000	$5,323,010	8.2%	$81,609,000	$6,164,261	7.8%	8,989,000	696,750	7.9%
1992	$143,062,000	$7,282,056	5.4%	$155,084,000	$11,257,092	7.8%	$76,440,000	$5,347,583	7.5%	$94,257,000	$6,230,945	7.1%	10,106,000	682,050	7.1%
1993*	$143,483,312	$7,614,864	5.3%	$155,520,351	$10,333,045	6.7%	$76,654,905	$5,048,219	6.6%	$94,545,178	$5,792,586	6.1%	10,126,339	665,712	6.6%
1994	$135,986,988	$7,038,843	5.0%	$153,817,225	$10,572,131	6.8%	$61,083,717	$5,006,620	7.3%	$93,896,169	$5,812,828	6.2%	11,770,595	714,681	6.5%
1995	$147,231,660	$7,540,482	5.3%	$165,843,807	$10,794,752	6.8%	$80,110,174	$5,097,626	7.2%	$105,683,502	$6,120,451	6.1%	13,987,442	787,716	6.1%
1996	$144,516,942	$9,441,492	6.5%	$165,624,758	$10,958,692	6.6%	$82,566,672	$5,368,338	6.6%	$110,700,428	$6,749,740	6.2%	15,307,135	924,623	6.3%
1997	$148,109,105	$9,478,931	6.5%	$171,403,342	$11,242,941	6.7%	$87,810,612	$5,701,994	6.7%	$120,190,810	$7,193,285	6.2%	17,692,585	1,036,699	6.3%
1998	$159,117,875	$10,186,752	6.6%	$183,078,295	$11,629,742	6.6%	$96,160,575	$6,054,688	6.6%	$132,825,066	$8,088,026	6.4%	19,868,113	1,264,470	6.7%
1999	$155,648,356	$9,559,564	6.1%	$179,551,987	$11,300,920	6.2%	$115,712,026	$6,093,168	5.8%	$135,750,715	$8,079,197	6.0%	20,703,461	1,332,378	6.6%
2000	$150,561,597	$10,009,368	6.5%	$182,122,729	$12,106,162	6.7%	$114,702,972	$8,008,818	7.0%	$136,270,029	$8,749,188	6.4%	21,156,883	1,477,190	7.1%
2001	$159,938,107	$10,138,570	6.5%	$191,744,451	$12,671,271	6.8%	$137,133,711	$8,519,134	6.8%	$145,958,936	$9,881,340	7.0%	22,342,090	1,521,838	7.0%
2002	$163,486,502	$10,197,078	6.3%	$201,486,521	$12,358,504	6.3%	$140,810,235	$8,978,510	6.5%	$154,847,124	$9,861,488	6.6%	23,769,889	1,452,790	6.3%
Average FY 1989-02		**$8,737,743**	**6.2%**		**$11,077,815**	**7.1%**		**$5,945,923**	**7.0%**		**$7,125,245**	**6.7%**		**$983,633**	**6.8%**

(1) Market Value at end of Fiscal Year Source : Washington State Investment Board

(2) Distribution to Beneficiaries Source; Washington State Investment Board

(3) Calculated by dividing distributions by the average of beginning and ending market value for the period

*Note: Prior to 1993, market value figures were rounded to the nearest thousand dollars.

Table 15: Loss in Purchasing Power and Beneficiary Real Return on Permanent Funds

Fiscal Year	Consumer Price Index (1)	% loss in purchasing power (2)	Common School			Normal School			Agricultural			Scientific University			State University			All Permanent Funds		
			Loss in Purchasing Power (3)	Nominal Return (4)	Real Return (5)	Loss in Purchasing Power (3)	Nominal Return (4)	Real Return (5)	Loss in Purchasing Power (3)	Nominal Return (4)	Real Return (5)	Loss in Purchasing Power (3)	Nominal Return (4)	Real Return (5)	Loss in Purchasing Power (3)	Nominal Return (4)	Real Return (5)	Loss in Purchasing Power (3)	Nominal Return (4)	Real Return (5)
1989	124.1	-5.2%	-$5,760,468	6.9%	1.7%	-$5,439,132	8.4%	3.3%	-$2,583,660	8.2%	3.0%	-$3,389,248	7.9%	2.7%	-$403,608	7.5%	2.4%	-$17,576,116	7.8%	2.6%
1990	129.9	-4.7%	-$5,478,359	6.8%	2.1%	-$5,641,727	8.2%	3.6%	-$2,740,979	7.9%	3.2%	-$3,409,405	8.0%	3.3%	-$392,330	7.4%	2.8%	-$17,662,799	7.7%	3.0%
1991	136.0	-4.7%	-$5,712,821	6.7%	2.1%	-$6,255,435	8.3%	3.6%	-$3,055,048	8.2%	3.5%	-$3,722,409	7.8%	3.1%	-$415,378	7.9%	3.2%	-$19,161,091	7.7%	3.0%
1992	140.2	-3.1%	-$4,127,612	5.4%	2.4%	-$4,477,478	7.8%	4.7%	-$2,196,754	7.5%	4.4%	-$2,715,578	7.1%	4.0%	-$294,849	7.1%	4.1%	-$13,812,271	6.9%	3.8%
1993*	144.4	-3.0%	-$4,292,048	5.3%	2.3%	-$4,652,419	6.7%	3.7%	-$2,293,148	6.6%	3.6%	-$2,827,993	6.1%	3.1%	-$303,052	6.6%	3.6%	-$14,368,660	6.1%	3.1%
1994	148.0	-2.5%	-$3,483,702	5.0%	2.5%	-$3,856,009	6.8%	4.3%	-$1,716,963	7.3%	4.8%	-$2,348,992	6.2%	3.7%	-$272,953	6.5%	4.0%	-$11,678,619	6.2%	3.7%
1995	152.5	-3.0%	-$4,305,689	5.3%	2.3%	-$4,859,712	6.8%	3.7%	-$2,146,529	7.2%	4.2%	-$3,034,150	6.1%	3.1%	-$391,592	6.1%	3.1%	-$14,737,671	6.3%	3.2%
1996	156.7	-2.8%	-$4,017,522	6.5%	3.7%	-$4,564,485	6.6%	3.9%	-$2,240,140	6.6%	3.8%	-$2,979,713	6.2%	3.5%	-$403,401	6.3%	3.6%	-$14,205,261	6.5%	3.7%
1997	160.3	-2.3%	-$3,361,371	6.5%	4.2%	-$3,871,414	6.7%	4.4%	-$1,957,110	6.7%	4.4%	-$2,652,229	6.2%	3.9%	-$379,065	6.3%	4.0%	-$12,221,189	6.5%	4.2%
1998	163.0	-1.7%	-$2,587,376	6.6%	4.9%	-$2,985,341	6.6%	4.9%	-$1,549,352	6.6%	4.9%	-$2,130,826	6.4%	4.7%	-$316,325	6.7%	5.0%	-$9,569,221	6.6%	4.9%
1999	166.2	-2.0%	-$3,089,730	6.1%	4.1%	-$3,559,561	6.2%	4.3%	-$2,079,731	5.8%	3.8%	-$2,636,327	6.0%	4.1%	-$398,249	6.6%	4.6%	-$11,763,597	6.1%	4.1%
2000	172.4	-3.7%	-$5,711,497	6.5%	2.8%	-$6,746,039	6.7%	3.0%	-$4,297,753	7.0%	3.2%	-$5,073,792	6.4%	2.7%	-$780,789	7.1%	3.3%	-$22,609,870	6.7%	2.9%
2001	178.0	-3.2%	-$5,042,919	6.5%	3.3%	-$6,072,089	6.8%	3.5%	-$4,090,155	6.8%	3.5%	-$4,583,765	7.0%	3.8%	-$706,480	7.0%	3.7%	-$20,495,407	6.8%	3.5%
2002	179.9	-1.1%	-$1,726,143	6.3%	5.2%	-$2,098,705	6.3%	5.2%	-$1,483,409	6.5%	5.4%	-$1,605,426	6.6%	5.5%	-$246,103	6.3%	5.2%	-$7,159,785	6.4%	5.3%
Average FY 1989-02		**-3.1%**	**-$4,192,661**	**6.2%**	**3.1%**	**-$4,648,539**	**7.1%**	**4.0%**	**-$2,459,338**	**7.0%**	**4.0%**	**-$3,079,275**	**6.7%**	**3.7%**	**-$407,441**	**6.8%**	**3.8%**	**-$14,787,254**	**6.7%**	**3.7%**

(1) Consumer Price Index All Urban Consumers - (CPI-U) U.S. city average All items 1982-48=100 end of Fiscal Year (June)U.S. Department Of Labor, Bureau of Labor Statistics, Washington, D.C. 20212

(2) Percentage change in CPI equal to the percentage loss in purchasing power in a dollar denominated assets

(3) Calculated by multiplying the average balance for the period by the percentage loss in purchasing power for the period

(4) From Table E

(5) Real Rate can be calculated two ways by subtracting the loss in purchasing power from the beneficiary earnings and dividing by the average fund balance for the period or by subtraction the percentage loss in purchasing power from the percentage distribution for the period.

Chapter 6: Comparison of Returns

In the previous section of this report, four alternatives for replacing trust lands were reviewed: forest lands, agricultural lands, commercial properties and the permanent funds. However, the returns on these four alternatives are not directly comparable. In order to compare the returns on the permanent funds and alternative property investments by the department, the returns must be adjusted for two factors.

First, the investment analysis done by the department on candidate forest and agricultural investments is done on a real (purchasing power) basis but the investment analysis on candidate commercial properties and the returns on the permanent fund are expressed in nominal terms. The returns on commercial properties and the permanent fund need to be adjusted for the loss in the purchasing power of the asset due to inflation to make them comparable to the projected real returns on forestry and agricultural investments.

Second, the returns to the beneficiary from department investments need to be adjusted by removing the management fund deduction to make them comparable to the return on the permanent funds[29] [30].

These two adjustments are made in Table 16. The gross nominal (before adjustment for lost purchasing power) returns for the permanent fund during FY 1989-2002 and projected return on commercial investments made by the department during FY 1989-2002 are shown in column (A). These returns are reduced by the 3.1 percent loss in purchasing power due to inflation during the study period shown in column (B) of Table 16. The average gross (before management deduction) real return expected on the actual investment in the three categories of replacement real property is shown in column (C). The weights used to calculate the weighted average real return on replacement property are the actual dollar investments made by the department during the FY 1989-2002 period.

[29] There is no management fund deduction from the Agricultural Trust lands, so for Agricultural Trust lands the weighted average gross real return on replacement property of 6.7 percent shown in column (C) of Table 16 should be compared to the Net Real Return on the permanent Fund shown in column (E) of 3.7 percent.

[30] The cost included in the investment analysis for the replacement properties are paid out of management funds, the reduction of gross real returns by the full 25 percent management deduction results in an under estimate of the net real return to beneficiaries shown in column (E). Also, a portion of the management fund deduction is reinvested into trust assets to generate future returns to beneficiaries. The reinvestment portion of the management fund deduction is akin to retained earnings and should not be deducted from returns to the beneficiaries. To the extent that funds are reinvested back into trust assets, the net real returns to beneficiaries shown in column (E) are under estimated.

The gross real return on investment in replacement assets is then reduced by the 25 percent management fund deduction shown in column (D). Column (E) is the comparable real return to beneficiaries on investment in the permanent fund or replacement properties. The weighted average projected net return on investments in real property assets by the department for the FY 1989-2002 period is 5.0 percent; the comparable average return on the permanent fund for that period is 3.7 percent.

Table 16: Comparison of Returns on Investments

	(A) Gross Nominal Return	(B) Loss in Purchasing Power	(C) Gross Real Return	(D) Less 25% RMCA[31]	(E) Net Real Return[32]
Real Property Purchases					
Forestry			6.0%	1.5%	4.5%
Agriculture			10.5%	2.6%	7.8%
Commercial	10.1%	-3.1%	7.1%	1.8%	5.3%
Weighted Average[33]			**6.7%**	**1.7%**	**5.0%**
Permanent Fund	6.8%	-3.1%			3.7%

Totals may not add due to rounding

The projected real return to beneficiaries of 5.0 percent from purchase of replacement trust properties since 1989 is 32 percent greater than the comparable real return to beneficiaries of 3.7 percent from the permanent fund.

[31] There is no management fund deduction on the Agricultural Grant Trust revenues in which case, the gross and net returns are the same.
[32] Net of 25 percent management costs.
[33] Average return for replacement lands is weighted based on the actual proportion of investment since 1998 in the three land categories shown in Table 5, Timber - 44 percent, Agricultural - 2 percent, Commercial - 54 percent.

Chapter 7: Risk

"*The ability to see that some things cannot be foreseen is a very necessary quality.*"[34]

Chapter 5 focused on the returns on alternative investments in replacement real property and investing in permanent funds. The second dimension in the investment decision criteria is risk. Effective investment criteria should consider both: return and risk.

Risk is the impact of forces that cause the actual return of an investment to deviate from that which was expected. Not all risks are negative. For example, historically, the trusts have benefited from greater than expected real price appreciation in commodity prices and asset values.

Fire, weather and insect damage are all well recognized physical risks to forestry and agricultural investments. In estimating expected investment return, the department adjusts expected revenues for these types of risks by incorporating fall-down factors based on historic probability of their occurrence. For example, the department can estimate the probability of loss from windstorms on timber investments in a geographic area of the state from historical records. But the actual levels of loss during any given year are unknown ahead of time.

Other risks like the impact of global warming or new environmental regulations cannot be easily predicted based on historical information. The investments made on behalf of the trust are also subject to many market and political risks.

Sometimes increased yield on investments is associated with increased risk. The department seeks to make prudent investments, which will produce yields commensurate with the level of risk. For example, the department's Asset Management Council directs acquisition of commercial properties to enhance income and to reduce risk. The council noted that, "Acquiring institutional grade (commercial) investments that will generate stable, current income with low to moderate levels of risk."

7.a Trust Management and Risk:

The department historically has been relatively conservative with regard to risk. The trust doctrine gives the department the legal duty to make the resources it manages

[34] Jean Jacque Rousseau, an 18th century French deistic philosopher

productive of revenue for both current and future trust beneficiaries. Because of these responsibilities, the department avoids putting the trusts' assets at long-term risk for short-term gain.

The trust doctrine also requires the department to act prudently in making investments. This means, among other things, avoiding undue risk, and avoiding tortious acts where prudent, etc.[35]. Trust law also holds a trust manager to a stricter standard of accountability than a normal investor. Thus, the department has appropriately tended to move slowly and deliberately in its investment decision-making process and to be conservative in the investments it makes on behalf of the trusts.

7.b Unique Risk vs. Asset Class Risk:

U**nique risks**[36] stem from the fact that many of the perils that surround an individual investment are peculiar to that investment and perhaps its immediate neighbors. In forestry investment, fire is an example of a unique risk. Only those properties actually burned will be impacted, returns from other forest investments will not.

The second type of risk is **asset class risk**. Asset class risks affect all investments within an asset class in a similar direction although often to different degrees. Market risk is an example of asset class risk. The section on permanent fund investment in chapter 5 of this report described how the market prices of fixed income investments are impacted by interest rate shifts. The interest rate risk is an asset class risk of the fixed income investment.

Each asset class is subject to its own set of risks, both positive and negative. The Asset Management Council has addressed specifically the element of risk in its asset acquisition criteria to guide the department in acquiring replacement properties. The focus of guidance is to help the department avoid properties with characteristics that have undue risk (e.g., sites with pollution problems). The guidance is not designed to address the risks that may impact a portfolio as a whole.

7.c Minimizing Risk through Diversification:

While risk is an unavoidable part of investing, a prudent manager will take steps to minimize both the risk to individual investments and the overall risk to the total portfolio. Diversification is one way to reduce overall risk to the portfolio. Even a little

[35] See page 4 of the Forest Resource Plan, "The Department's Legal Obligations – The Trust Mandate"
[36] Unique risk may be called unsystematic risk, residual risk, specific risk, or diversifiable risk.

diversification can provide a substantial reduction in risk, but there are limits to how much risk can be reduced by diversification.[37]

Diversification works because returns on different investments do not move exactly together. An unexpected loss on one investment or class of investments can be averaged in with the overall return. On many occasions a decline in the return from one investment can be canceled out by a rise in the return from others. The department is able to reduce risk by diversification both within and between asset classes.

One of the policies adopted by the Board of Natural Resources in the 1988 Transition Lands Policy plan, reads:

"*The department will actively pursue a program of diversified property investments to reduce the risk of variability of income*".

The department can reduce unique risk by diversification within the asset class. Continuing our forestry example, if a trust investment portfolio were primarily comprised of a single block of timber or blocks within an area, that trust might face unnecessary risk from fire, windstorm, insect, and other risks that could impact most or all of the assets of that trust. The trust's risk can be reduced be diversifying its timber holdings into a number of geographically diversified forest investments around the state.

The Asset Management Council has directed the department to acquire diverse agricultural holdings noting that owning, "Properties in diverse agricultural communities, precipitation zones, agrarian infrastructures, and commodity markets generally reduce(s) market risk and variation in annual returns."

Diversification between asset classes can further reduce overall portfolio risk. By using a large portion of the funds available to purchase replacement property to acquire commercial and agricultural investments the department is reducing asset class risk.

7.d Measuring Risk and Asset Correlation:

Standard deviation is the conventional measure of historical risk within an asset class. The lower the standard deviation, the lower the average deviation from the average yield over the period.

Statistically, how closely investments move together over time is called their correlation. Investment returns that move in tandem have a correlation coefficient of +1. Investment returns that always move proportionately in opposite directions have a coefficient of –1. Investments whose returns are completely independent would have a correlation

[37] See Chapters 8, 9, &10 of Principles of Corporate Finance by Richar A. Brealey and Stewart C. Myers for detail.

coefficient of zero. The less correlated investment classes are, the greater the potential reduction in risk from diversification.

The standard deviation and correlation for annual nominal returns for the four asset classes discussed in this report are shown in Table 17. These are not the standard deviations or correlations for the actual assets managed by the department and State Investment Board, rather, they are industry averages as compiled in an investment feasibility study done for the California Public Employees' Retirement System Investment Office, Real Estate Unit.[38]

Caution is needed in drawing conclusions about granted trust management using these numbers. For example, the standard deviation of annual nominal return on bonds is not directly comparable with that to beneficiaries since Table 17 includes the price as well as coupon and realized capital gains revenue. Most of the deviation shown in Table 17 is the result of price changes in the value of the bonds. Likewise, the correlation between bonds and the three real property investments may reflect price changes.

The highest standard deviation in total return was for timber and bonds, while agricultural and real estate had much lower standard deviation or risks.

Table 17: Standard Deviation and Correlation between asset classes (1970-1998)

Asset Class	Standard Deviation	Correlation				
		Inflation (CPI)	Bonds	Agricultural	Commercial	Forestry
Inflation (CPI)	3.3%	1.00				
Bonds	11.5%	(0.53)	1.00			
Agricultural	8.5%	0.57	(0.51)	1.00		
Commercial	5.9%	0.41	(0.26)	0.09	1.00	
Forestry	14.9%	0.26	(0.41)	0.54	(0.06)	1.00

The greatest opportunity to benefit from diversification would appear to be between bonds and all three of the real asset classes, which are negatively correlated. This negative correlation is probably due in part to the fact that while the return on bonds is negatively correlated with inflation, it is positively correlated with the three real property asset classes.

Forestry and commercial investments were negatively correlated while forestry and agricultural investments were positively correlated. This indicates that diversification out of timber into commercial investment will probably reduce overall risk more than diversification out of timber into agricultural.

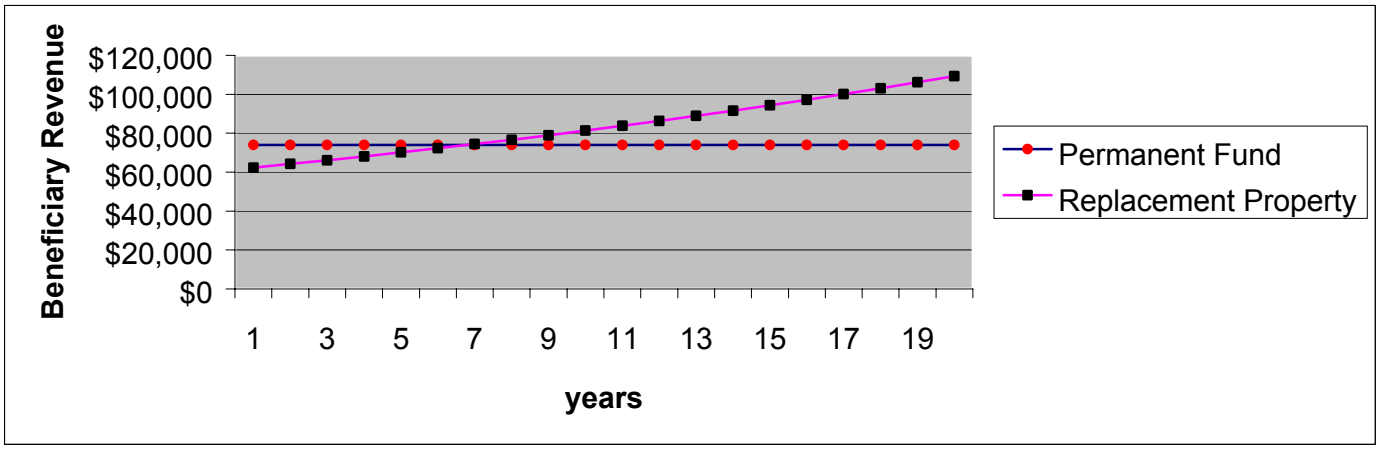
[38] "Agricultural land Investment Feasibility" Prepared for: California Public Employees' Retirement System Investment Office, Real Estate Unit, By Ernst & Young LLP November 5, 1999.

Chapter 8: Costs and Benefits Over Time

One important difference between these two alternative investments is that the beneficiary receives all of the coupon return on the permanent fund as it is earned. The appreciation in replacement land value accrues to the value of the asset and is realized by the beneficiary through higher rents and/or higher prices for the sale of the assets. Graph 3 shows a comparison of the cash flow to the beneficiary from investing $1,000,000 in replacement land with a real rent of 5.0 percent where rents increase over time at the rate of inflation or the permanent fund at a nominal return of 6.8 percent.

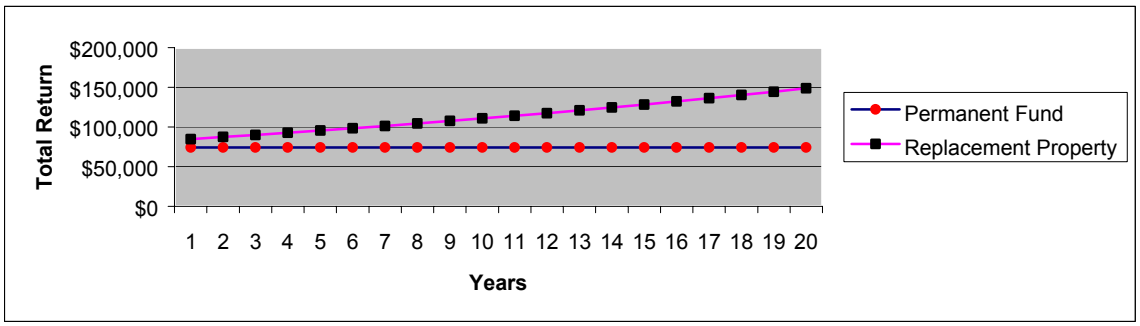
The revenue to the beneficiary is higher from investment in the permanent fund during the first six years. During the seventh year the revenue to the beneficiary from the two investments is equal. By the end of the 20-year period the income on the replacement land is almost half again greater than the return from the permanent fund; and in addition the nominal value of the property has increased by 80 percent to $1,800,000 while the bond has a nominal value of $1,000,000.

Graph 3: Net Cash Flow to Beneficiaries from Investment in Permanent Fund or Replacement Property



When the appreciation of the asset is included as in Graph 4, the total return to beneficiaries from investment in replacement property is greater than the return on the permanent fund in all years. Total return is the appropriate approach to performance evaluation. It includes not only net income realized from land management activities but also the unrealized change in land asset value[39]. The appreciation in asset value is equal to the present value of anticipated increase in future revenue to the trust beneficiaries. By the end of the 20-year projection period the net return is twice that on the permanent fund.

Graph 4: Total Return (Cash to beneficiary plus appreciation of the asset) from Investment in Permanent Fund or Replacement Property



[39] See "Endowment Fund Reform and Idaho's State Lands Evaluating Financial Performance of Forest and Rangeland Assets" by Jay O'laughlin and Philip S. Cook page 3 & 25.

Chapter 9: Other Benefits

Through the Multiple Use Act (**RCW 79.68.010**) the legislature directs that a multiple use concept be utilized by the department in the management and administration of state-owned lands where to do so is "consistent with the applicable trust provisions of the various lands involved."

In **RCW 79.68.020** the legislature defined multiple use as management and administration "to provide for several uses simultaneously on a single tract and/or planned rotation of one or more uses on and between specific portions of the total ownership."

In **RCW 79.68.050** the legislature lists 12 basic activities on trust lands that may be compatible with trust obligations:

(1) Recreational areas;
(2) Recreational trails for both vehicular and nonvehicular uses;
(3) Special educational or scientific studies;
(4) Experimental programs by the various public agencies;
(5) Special events;
(6) Hunting and fishing and other sports activities;
(7) Maintenance of scenic areas;
(8) Maintenance of historical sites;
(9) Municipal or other public watershed protection;
(10) Greenbelt areas;
(11) Public rights of way;
(12) Other uses or activities by public agencies;

Further in **RCW 79.68.050** the legislature states that "if such additional uses are not compatible with the financial obligations in the management of trust land they may be permitted only if there is compensation from such uses satisfying the financial obligations" to the trust.

When the interests of the trust and other benefits from trust lands of importance to the legislature are in conflict, the legislature has directed the department to protect the trusts' interest. In **RCW 79.01.128**, the legislature authorizes the department to "alter its land management practices to provide water with qualities exceeding standards" . . . "PROVIDED, That if such alterations of management by the department reduce revenues from, increase costs of management of, or reduce the market value of public lands the city or town requesting such alterations shall fully compensate the department."

And when the legislature directed the department of fish and wildlife to develop goals for fish and wildlife on shrub steppe habitat and agricultural lands in **RCW 79.01.295,** the legislature directed the department to implement practices to meet these goals where "consistent with the trust mandate of the Washington state Constitution and Title 79 RCW."

In addition to the value to beneficiaries of the income stream developed from resource sales, trust lands encompass a number of non-market values. These include active-consumptive values (hunting and fishing), active-non-consumptive values (hiking and camping) and the passive value derived from merely knowing that a multiple use forest exists and can provide for the preservation of healthy ecosystems for current and future generations. Some non-market values like hiking might be associated with a particular property or set of properties, while other values like ecosystem protection might not be attributable to any one property.

In 1996 Deloitte & Touche LLP[40] estimated the equivalent dollar values of active non-market values of DNR lands. These were estimated utilizing (1) third party surveys involving the contingent valuation method, and (2) measures of the costs incurred in traveling to a recreational site, the travel cost method.

Deloitte & Touche estimated the annual active non-market benefits from department-managed grazing ($17.8 million), agricultural ($0.8 million) and forest ($158.1million) lands at $176.7 million per year. Activities considered were fishing ($37.7 million), hunting ($13.9 million), outdoors recreation ($89.5 million) and water recreation ($35.6 million).

Deloitte & Touche pointed out that Washington has become synonymous with an outdoor, eco-conscious, recreation-intensive lifestyle. Residents take great pride in and derive a great deal of psychological enjoyment from the natural beauty the state offers. As Washington's population grows and residents have more leisure time, the level of outdoor activity is expected to increase proportionately as will the value of the benefits to the public from non-market uses of trust lands. Further these types of opportunities are becoming less available on private lands, increasing the importance of the remaining public lands.

The aesthetic qualities of our state are among the significant factors that draw new residents and businesses to Washington and fuel the economic development of our region. This hypothesized "second paycheck" is one of the arguments used by regional economists to explain why our region has prospered and Washington has outperformed surrounding states.

[40] Deloitte & Touche LLP, Economic Analysis June 1996 a report on the land managed by the Washington State, department of natural resources.

Deloitte & Touche also examined indirect benefits to the citizens of Washington State from trust lands. Indirect market benefits are the employment generated, wage and salary income earned, and tax revenue paid to state and local governments as a result of economic activity taking place on DNR-managed lands. These "down stream" benefits do not accrue to the beneficiaries but are of great importance to the individuals who benefit from them, to the state as a whole, and even beyond our state's boundaries.

Deloitte & Touche estimated the annual jobs supported by market and non-market activity on department-managed grazing (2,510), agricultural (4,570) forest (14,240) lands and commercial real estate (2,800) at 24,120 jobs per year. Estimated wage and salary incomes earned were $374 million per year. Deloitte & Touche estimated $62.7 million in taxes are paid each year as a result of market and non-market activity. These values to the state and economy accrue in addition to the trust revenues to beneficiary.

In a recent study titled "Evaluation of Blanchard Mountain Social, Ecological and Financial Values" by the Cedar River Group[41] estimated the value to the citizens of the surrounding two counties (Whatcom and Skagit) of the environmental attributes of the 4,827-acre property at $8.5 million or $1,765 per acre. They estimated that timber harvest was expected to produce between $1,370 and $2,740 in total statewide economic benefit per acre per year. Direct recreational benefits were estimated at between $117 and $195 per acre per year. Cedar River estimated that every 45 to 86 acres supported a job somewhere in Washington State. Total tax revenues from annual timber harvests and recreational visits were estimated to be from $25 to $50 per acre per year, most of which supported local taxing districts.

[41] Cedar River Group at.al. "Evaluation of Blanchard Mountain Social, Ecological and Financial Values" August 2002

Chapter 10: Findings

10.a Return on Investment:

Since 1989, the department has purchased three categories of replacement trust lands, forest lands, agricultural lands, and commercial properties. The weighted average projected total real return on these acquisitions is 6.7 percent while the nominal return on the permanent fund since 1989 is 6.8 percent. Two adjustments are required before these two returns can be compared.

First, the total real return on the acquisition of replacement property of 6.7 percent needs to be reduced by the management fund deduction of 25 percent; this results in a net real return to beneficiaries of 5.0 percent[42].

Second, to make the nominal return to beneficiaries on the permanent fund comparable to the real return on replacement properties, the return on the permanent fund needs to be adjusted for the loss in purchasing power on the permanent fund due to inflation. The loss in purchasing power on the permanent fund since 1989 averaged 3.1 percent per year, this results in an average net real return to beneficiaries on investment in the permanent funds of 3.7 percent.

The projected real return to beneficiaries from purchase of replacement trust properties since 1989 of 5.0 percent is 32 percent greater than the comparable real return to beneficiaries from the permanent fund of 3.7 during the period.

10.b Appreciation and Long-term Revenue:

One important difference between these two alternative investments is that the beneficiary receives all of the coupon return on the permanent fund as it is earned. The real value in purchasing power terms of the corpus of the permanent fund is reduced over time by inflation, while land values increase with inflation. The appreciation in replacement land value accrues to the value of the asset and is realized by the beneficiary through higher rents and/or higher prices for the sale of the assets over time. Thus while the permanent fund may result in a higher dollar return to beneficiaries in the short run,

[42] 6.7% times (1-25%) is equal to 5.0%.

investment in replacement property is expected to result in greater long term revenues to the beneficiaries.

10.c Diversification:

Over half of the replacement property purchased has been non-forest lands. Asset value diversification has resulted in the growth of lease revenues from irrigated agriculture and commercial real estate. Revenues from irrigated agriculture leases have increased from $1.5 million in 1989 to more than $2.7 million in 2002, an 80 percent increase. Revenue from commercial real estate increased from $0.9 million in 1989 to $4.5 million in 2002, a five-fold increase. While irrigated agricultural and commercial real estate holdings represent a small percent of the land assets portfolio, these data show the positive effect of asset value diversification on sustainable revenue.

10.d Other Benefits:

In addition to providing a better return on investment, greater long-term revenue to beneficiaries, and diversification of the trust asset base, the purchase of replacement property allows the department to meet other legislative objectives given to the department. By purchasing replacement property the department is better able to maintain the publicly owned land base and the publicly owned forest land base, and to maintain the sustainable harvest of timber from department-managed lands.

By purchasing replacement trust property the department is able to provide multiple use benefits that are consistent with providing revenue to trust beneficiaries. A number of studies have shown that the social, environmental, and economic benefits from trust lands are of great value to the citizens of Washington State. Without the purchase of replacement property these benefits would diminish over time.

Chapter 11: RECOMMENDATIONS

This report to the Legislature lays the foundation for on-going discussion about the financial return to the various beneficiaries from the management of the federally granted trusts.

The Department of Natural Resources has met or corresponded with representatives of all the beneficiaries in the development of this report. The department is grateful to the many beneficiaries who took the time to read and comment on the draft report. Where appropriate, their comments have been incorporated into this report; these changes have greatly improved the final product, contributing greatly to its content and clarity. In addition, some of the beneficiaries have provided written and verbal recommendations for this section of the report. We anticipate that others may provide input after the report is published. The department will publish an addendum to the report if appropriate.

During the development of this report to the legislature, the department has identified some recommendations including areas for further study. This section incorporates those recommendations with the responses from beneficiaries.

We recommend that:

I) Funding be made available to determine the current value of all trust assets managed by the department.
   a. This valuation will be used as a base for trust asset performance.
   b. This valuation will serve as a basis for measurement, guidance and performance of asset diversification plans for each trust.
   c. The department should update the valuations periodically, once every two to four years.

II) Funding be made available to evaluate the economic, social, and environmental returns to the citizens of the state from the "multiple use" benefits of trust lands that occur collaterally to the returns to the financial beneficiaries.

III) Based on the results of I and II above, the department together with beneficiaries develop a prudent asset diversification plan for each trust that will increase expected financial returns while reducing risks to beneficiaries.
   a. The department and beneficiaries should develop diversification goals and strategies to present to the Board of Natural Resources (board).
   b. The department should develop a tracking mechanism to monitor these diversification plans for approval by the board.
   c. The board should insure that all trusts are treated equitably in the diversification plans and that no asset should be disposed of or acquired unless to do so is in the best interest of the effected trust(s).

IV) The state should evaluate the constitutionally mandated 160 acre parcel size limit for land sales to determine whether this limit or any other acreage limit unnecessarily restricts appropriate diversification of the trust assets; or whether this or other size limit protects the trusts from diminution as a result of large parcel discounts on sales.[43]

V) The department engage in multiparty facilitated land exchanges and grouped land transactions to accelerate the rate of diversification and reduce cost where to do so is in the interest of the effected trust(s).

VI) Funding be made available to investigate a wide array of potential future markets for trust assets that could result in increased revenues to beneficiaries. These markets might include, but are not limited to:
   a. Markets for carbon credits.
   b. Development of transition and urban trust lands independently or as joint ventures.
   c. Authorize the department to enter the field of value-added wood processing such as log sort yards and wood processing.
   d. Develop alternative renewable energy sources such as wind generation.

The department respectfully submits these recommendations along with this report as requested in the 2002 Supplemental Capital Budget for the legislature's consideration. We look forward to working with the trust beneficiaries and the legislature on the next steps in increasing revenues to the beneficiaries from the trust assets managed by the department.

[43] Constitution of the State of Washington - Article XVI, Section 4.

Department of Natural Resources, Report to the Legislature: "Options for Increasing Revenues to the Trusts: Comparison of Returns from Investing in Real Property and in Permanent Funds"

APPENDIX A

Department of Natural Resources
Asset Acquisition and Disposal Criteria

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February 13, 2002

Evaluating Property for Acquisition

Identified below are the preferred characteristics for the varied property types managed by the department. When evaluating acquisitions (either through purchase or exchange) it is important to look at all the potential uses a property may have, current and future.

For the upland revenue trusts, the focus will be on forest, agricultural and commercial property. Desirable properties for trust ownership need to meet some or all of the criteria. Those lacking in more than one of the characteristics may be considered for disposition.

The primary basis for this guidance criteria is a collection of past work conducted by various ad hoc committees and planning groups whose work was summarized in the report dated April 4, 2001, by Gretchen Nicholas, Business Systems Support Division Manager. Most recently, SE Region has contributed suggestions arising from the development of the region's asset inventory and assessment report.

A. Forest Land Characteristics

1. *LOCATION*

   a. Throughout Washington State; however, the investment focus will be west of the Cascades.

   b. Should block up with existing state lands or be a manageable size if separated.

   c. Should have physical and legal access, and be near transportation networks.

   d. Surrounding or adjacent land uses should be compatible with forest management activities.

   e. Properties should generally be located in those areas designated in the county comprehensive land use plan as Forest Lands of Long-Term Commercial Significance.

2. *PHYSICAL CONDITION*

   a. Forest Soils Class index should be Class I, II, III. Site Class IV or V might be included when justified by economic or other considerations.

b. In eastern Washington, preferred forest properties will be in areas of 30 inches or more annual precipitation and soil depths of at least 40 inches.

c. Properties with soils that show an economic return with fertilization are desirable.

d. Terrain should be suitable for ground-based or tracked harvesting equipment (operability codes 1, 2, or 3). Slopes should have a low landslide potential (slope stability codes 1, 2, or 3).

e. Purchased properties should generally be bare land or have non-merchantable young trees.

f. Avoid acquiring forest land in areas that historically have had extensive root disease, and areas with insect control problems.

3. *FINANCIAL*

a. Properties should meet investment return requirements (5 percent or greater return); analyses are conducted using 60-200 year investment cycles.

b. The purchase price or exchange value should take short and long-term management costs and requirements into consideration, such as anticipated silvicultural activities, road construction and logging.

4. *SOCIAL/POLITICAL*

a. Acquisitions in counties where local government supports forestland purchases by the state are desirable.

b. Consider the public use impacts of any acquisition.

B. Agricultural Land Characteristics

1. *LOCATION*

a. Throughout Washington State; however, the investment focus will be east of the Cascades. Preferred properties will be located in strong established diverse agricultural areas.

b. Preferably in traditional markets or products that experience long-term economic stability and growth. Speculative markets or products will generally be avoided.

c. Properties should have physical and legal access, and be near transportation networks.

d. Surrounding land uses should be compatible with agricultural land management activities.

e. Local comprehensive plans should allow for the current and/or intended use(s).

2. *PHYSICAL CONDITION*

a. Large enough to be farmed economically and managed efficiently. Economic farm size is dependent upon the preferred crops and nature of existing land-uses and infrastructure; minimum size may range from less than one hundred acres to several hundred acres.

b. Properties should be sufficiently productive to attract desirable lessees. Soil, climate and market factors need to combine to produce reasonable returns, both to the lessees and to the trusts.

c. Soils should be high quality and productive for current or intended land use(s) as documented by the Natural Resource Conservation Service and Cooperative Extension.

d. Soils should have good drainage capability.

Applies to irrigated farming:

e. Preferred properties are served by a self-contained, independent (certificated/permitted) water source and delivery system(s), or located in an irrigation district that, in either case, can be managed and leased as an independent unit.

f. Water quantity and quality shall be sufficient to irrigate current and intended crops and acres. Areas of declining water tables will be avoided.

g. Property should be capable of producing a variety of crops.

Applies to dry land farming:

h. Preference will be given to lands located in zones of 12 inches or more of annual precipitation, and be capable of producing annual crops.

i. Areas of stable soils that are highly productive and have low soil erosion potential from usual and customary tillage practices are preferred.

Applies to rangelands:

j. Preference will be given to areas of healthy plant communities, less subject to noxious weeds, and sufficient vegetative cover to resist the invasion of noxious weeds.

k. Properties should have (or have access to) stock water and water rights.

l. Properties should have multiple use potential, and the ability to be used for alternative purposes such as alternative power generation, recreation, wildlife habitat, mineral extraction, oil and gas leasing, irrigated agriculture, communication sites, commercial or higher and better use development.

m. Properties should block up existing state ownership and facilitate management, access, and program objectives.

3. *FINANCIAL*

a. Stability of production. The ability to predictably produce crops under a variety of weather patterns is important.

b. Diversity of holdings. Properties in diverse agricultural communities, precipitation zones, agrarian infrastructures, and commodity markets generally reduce market risk and variation in annual returns.

c. Initial capitalization rates and internal rate of return should be commensurate with the land use.

d. Strong demand by multiple markets, lessees, and end users. The ability to attract an adequate bidding pool is important.

e. Risk needs to be commensurate with probable returns. There is a traditional relationship between returns and risk. Given the long-term nature of the trusts and the common law duties of a trustee, the department avoids high risk transactions.

4. *SOCIAL/POLITICAL*

a. Acquisitions in counties where local government and agrarian infrastructure providers (e.g., irrigation districts) support non-forest land purchases by the state are desirable.

b. Consider the public use impacts of any acquisition.

C. Commercial Property Characteristics

The goals of acquiring commercial real estate include the potential for an attractive income stream and achieving diversification in a portfolio dominated by timber investments. Objectives include:

1. Acquiring institutional grade investments that will generate stable, current income with low to moderate levels of risk. (Given the long-term nature of the trusts and the common law duties of a trustee, the department avoids high risk transactions.)

2. Forms of investments considered:
   a. Fee acquisition of real estate subject to long-term unsubordinated ground leases on which the lessee has constructed quality improvements, with rents net of expenses;

   b. Fee acquisition of improved real estate subject to master leases, with rents net of expenses;

   c. Purchase and lease-back of improved real estate (may involve ground only or entire project); and

   d. Fee acquisition of improved real estate: office, retail, and commercial or industrial buildings.

3. Forms of investments generally avoided: (1) single or multi-family residential ground leasing investments; (2) single or multi-family complexes; (3) out-of-state investments and (4) high-risk or tracts with high management costs.

4. With few exceptions, investments are on improved properties which are superiorly located, well-constructed, maintained to the highest standards, have limited management requirements or a demonstrated track record of successful management in the past, and have the potential for conversion to other uses (i.e., building with single-tenant user converts easily to multiple-tenant configuration) where appropriate.

5. Investment decisions are evaluated considering the reliability of the income stream and the financial rate of return, tenant credit history, and the use the tenant/lessee is making of the property, as well as fundamental real estate criteria such as location, occupancy trends, supply conditions, consistency with land-use planning, zoning, etc.

   a. Single-tenant properties should generally have a tenant/lessee with a strong balance sheet and sound credit rating reported by established credit bureaus. Multi-tenanted properties should generally have a favorable percentage of tenants with good credit ratings.

   b. Properties with lessees/tenants who generate or handle hazardous substances should generally be avoided.

D. Aquatic Lands Characteristics

1. Property to be acquired through purchase or exchange must provide at least one of the following benefits:

   a. Be or abut a critical or an essential habitat and/or wildlife refuge

   b. Be beneficial to sediment transport and/or nearshore habitat, as identified by the national Marine Fisheries Services, state natural resource management agency(s), or the US Department of Fish and Wildlife.

   c. Abut an upland parcel with public upland ownership, easements, or some other formalized agreement that would allow direct public use of and access to the water.

   d. Be actively used or abut parcel(s) actively used for water-dependent uses or allow for water dependent use.

   e. Contain a historic or archaeological property listed on or eligible to be listed on the National Register of Historic Places.

   f. Generate or have the potential to generate higher revenues than the parcel being transferred out of state ownership in a manner consistent with the

benefits listed in RCW 79.90.455.

2. The proposed transaction must benefit or have no negative impact on:

   a. Navigation.

   b. The diversity and health of the local environment including the production and utilization of renewable resources.

   c. The quantity and quality of public access to the waterfront.

   d. Treaty rights of federally recognized tribes.

3. The following issues must also be considered:

   a. The relative proximity of the tidelands or shorelands to be acquired or exchanged to other state-owned shorelands or tidelands; and

   b. The cumulative impacts of similar transactions on water dependent uses, nonrenewable and renewable natural resources, and total aquatic lands acreage managed by the department.

E. Natural Areas Characteristics

When evaluating property acquisitions and disposals, consider the potential for including properties in either future or existing natural areas. Site criteria is defined in RCW 79.70, RCW 79.71, and in the Natural Heritage Plan. Key elements are summarized below:

1. Site identification criteria for Natural Area Preserves includes evaluating the rarity, ecological quality, threats, adequacy of existing protection, protection potential and taxonomy of Washington's flora and fauna.

   a. Highest priority for protection is given to plant species; communities or ecosystems with the greatest jeopardy of destruction or extinction and that typically have little or no representation in protected areas.

   b. Second priority is given to plant species, communities or ecosystems not in as much danger of imminent destruction, but that typically have little or no representation in existing protected areas.

   c. Third priority is given to plant species, communities or ecosystems not in immediate jeopardy of destruction, but that are significant components of the state's natural heritage and require formal protection to ensure future viability.

2. Site identification criteria for Natural Resources Conservation Areas is defined in RCW 79.91.020 as:

a. Lands with high priority for conservation, natural systems, wildlife, and low-impact public use values

b. Areas with flora, fauna, geological, archeological, scenic, or similar natural features of statewide significance

c. Examples of native ecological communities

d. Environmentally significant sites threatened with conversion to incompatible or ecologically irreversible uses.

3. Prioritization of funding requests for natural areas and of pursuing acquisitions once funding is received is based on the following:

a. Willing sellers
b. Property under imminent threat of conversion

c. Property already on the market, or ready to be marketed

d. Ecological importance

e. Management considerations

f. Community considerations

g. Appropriate public use opportunities (for NRCAs)

h. Available funding

Evaluating Property for Disposal

Disposing of upland assets through either sale, transfer, or exchange must result in a net benefit to the trusts or other asset categories involved, either through replacing properties that produce little or no benefits, or through eliminating management cost and risk that outweigh benefits.

The following criteria for disposal are divided into two categories: (1) criteria for determining whether properties should be disposed of, and (2) determining the timing of the disposal.

1. Upland properties may be considered for disposal if any of the following criteria apply:

a. Parcel has low income-generating potential and limited multiple land use(s). not leasable, poor physical attributes, has external constraints to managing for H&B use).

b. Parcel has low appreciation potential.

c. Parcel management costs are high in comparison to actual or potential returns and/or appreciation potential.

d. Parcel carries risks that could result in lawsuits or other high-cost actions.

e. Significant environmental risks are present, such as hazardous waste or environmentally sensitive attributes.

f. Present potential use(s) are not consistent with asset stewardship or portfolio goals (e.g., property is zoned residential under GMA).

g. Parcel is involved in a trespass or condemnation action.

h. Parcel is designated or zoned residential in a city/county comprehensive land use plan.

i. Parcel is an in-holding within another major landowner's ownership, or is a small, isolated tract.

2. Properties may be prepared for disposal when they have achieved a reasonably high (optimal) asset value and when the parcel meets one or more of the following criteria:

a. A willing buyer is available (either private or public sector).

b. The local real estate market is (or will be) at a high level for the type of property being considered.

c. Parcel has high holding costs, particularly those associated with liability or other risk (i.e., disposal becomes an "emergency").

d. All issues preventing cost effective disposal of a nominated parcel are resolved (e.g., encumbrances and other title issues, property enhancements, zoning).

APPENDIX B

Revenues to Beneficiaries From Federally Granted Trust Assets

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A. Common School Trust **Graph B-1**

B. Scientific School **Graph B-2**

C. Agricultural School **Graph B-3**

D. Normal School **Graph B-4**

E. University (Original and Transferred CEP&RI) **Graph B-5**

F. Remaining CEP &RI **Graph B-6**

G. Capitol Building **Graph B-7**

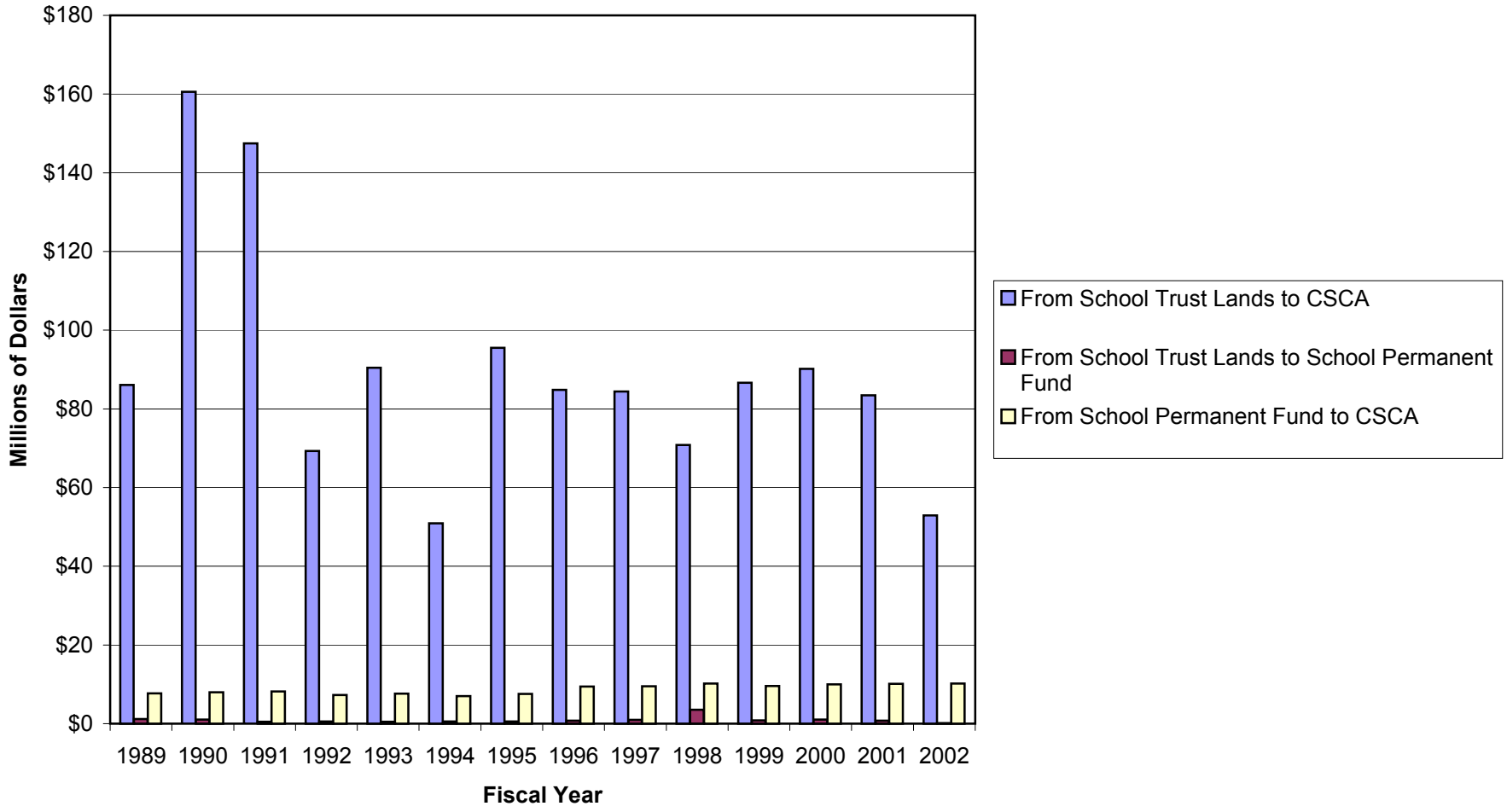
Table B-1: Common School Trust Revenues
From School Trust Lands Managed by the Department of Natural Resources
And From School Permanent Fund Managed by the State Investment Board
(In Millions of Dollars)

Fiscal Year	From School Trust Lands											From Perm-anent Fund to CSCA
	Source of Revenue								Grand Total	Distributed to:		
	Sales						Leases	Other Revenue		Common School Construction (CSCA)	School Permanent	
	Timber Sales	Transferred Cutting Rights{1}	Trust Land Transfer	Timber Related	Land Sales	Total Sales						
FY1989	$78.6	$0.0	$0.0	$1.8	$0.7	$81.1	$5.5	$0.6	**$87.3**	$86.1	$1.2	$7.7
FY1990	$93.7	$0.0	$57.1	$3.5	$0.7	$155.0	$5.0	$1.7	**$161.7**	$160.6	$1.1	$8.0
FY1991	$57.6	$0.0	$82.3	$0.3	$0.0	$140.2	$6.0	$1.7	**$147.9**	$147.4	$0.5	$8.2
FY1992	$51.0	$0.0	$11.4	$0.1	$0.1	$62.5	$6.8	$0.5	**$69.9**	$69.3	$0.5	$7.3
FY1993	$48.2	$0.4	$35.1	$0.0	$0.0	$83.8	$7.2	$0.0	**$91.0**	$90.5	$0.5	$7.6
FY1994	$37.2	$0.3	$5.1	$0.3	$0.0	$42.9	$8.5	$0.2	**$51.5**	$50.9	$0.6	$7.0
FY1995	$55.4	$0.7	$32.3	$0.2	$0.0	$88.6	$7.1	$0.4	**$96.1**	$95.5	$0.6	$7.5
FY1996	$73.8	$1.8	$0.0	$0.1	$0.1	$75.8	$9.5	$0.3	**$85.6**	$84.8	$0.8	$9.4
FY1997	$72.8	$1.8	$0.0	$0.4	$0.1	$75.0	$10.3	$0.0	**$85.4**	$84.4	$1.0	$9.5
FY1998	$57.5	$1.5	$2.1	$0.2	$2.5	$63.8	$10.4	$0.2	**$74.3**	$70.8	$3.5	$10.2
FY1999	$55.1	$1.4	$19.7	$0.6	$0.0	$76.8	$10.5	$0.1	**$87.4**	$86.6	$0.8	$9.6
FY2000	$53.7	$1.5	$24.7	$0.1	$0.0	$79.9	$11.2	$0.1	**$91.2**	$90.2	$1.1	$10.0
FY2001	$39.7	$1.1	$31.4	$0.1	$0.0	$72.3	$11.7	$0.1	**$84.2**	$83.5	$0.7	$10.1
FY2002	$30.4	$1.1	$8.6	$0.2	$0.0	$40.4	$12.5	$0.1	**$53.0**	$52.9	$0.1	$10.2
FY1989-2002	**$804.8**	**$11.5**	**$309.8**	**$7.9**	**$4.3**	**$1,138.3**	**$122.1**	**$6.1**	**$1,266.5**	**$1,253.5**	**$13.0**	**$122.3**

{1} Revenue from timber cutting rights on Forest Board Purchase lands That was transferred to the Common School, Capitol Building, Normal School, and University Granted Trusts as payment on the FDA debt to RMCA.

Source: Washington State Department of Natural Resources Annual Report FY 1989-2001

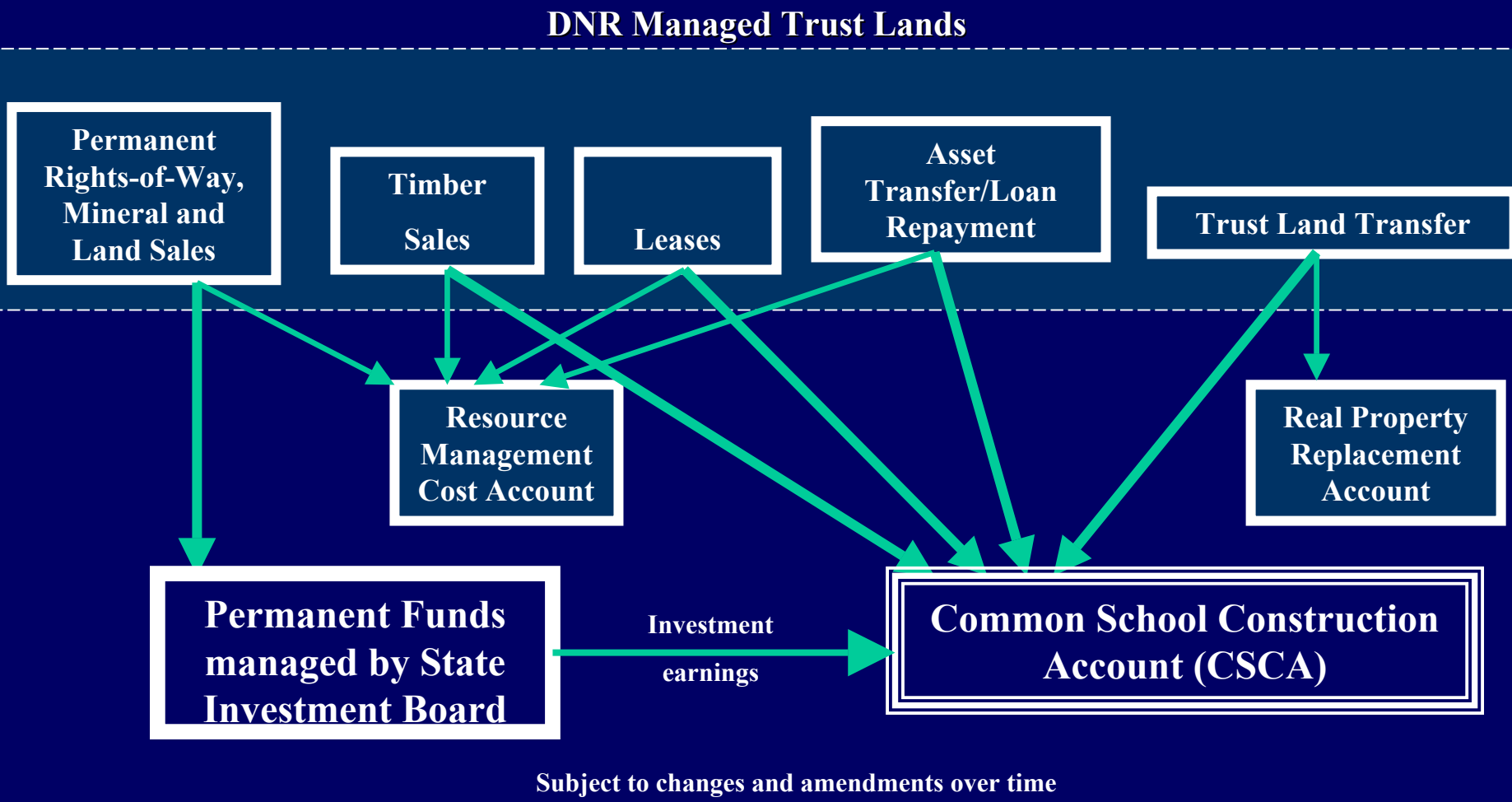
Table B-1:Common School Trust Distribution of Revenue



WASHINGTON STATE DEPARTMENT OF Natural Resources

Table B-1:Common School Trust Path of Revenue

Original 2.4 Million Acres
Current 1.7 Million Acres



Subject to changes and amendments over time

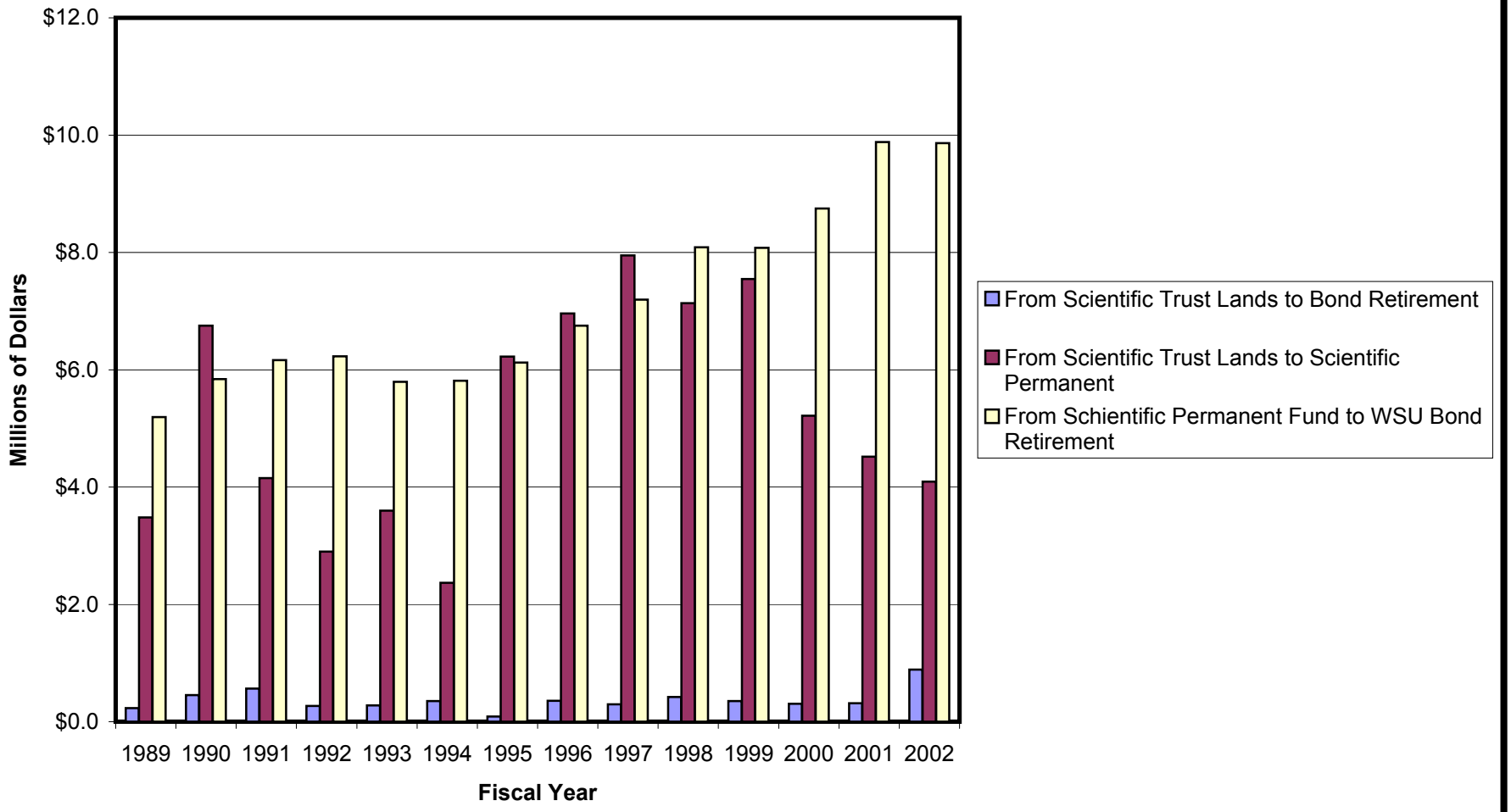
Table B-2: Scientific Trust Revenues
From Scientific School Trust Lands Managed By the Department of Natural Resources
And From Scientific Permanent Fund Managed by the State Investment Board
(In Millions of $'s)

Fiscal Year	From Scientific Trust Lands									From Permanent Fund to WSU Bond Retirement
	Source of Revenue:						Grand Total	Distributed to:		
	Sales				Leases	Other Revenue		WSU Bond Retirement	Scientific Permanent	
	Timber	Timber Related	Land	Total Sales						
FY1989	$3.4	$0.0	$0.0	**$3.4**	$0.2	$0.1	**$3.7**	$0.2	$3.5	$5.2
FY1990	$6.7	$0.0	$0.0	**$6.8**	$0.2	$0.2	**$7.2**	$0.5	$6.8	$5.8
FY1991	$4.1	$0.0	$0.0	**$4.1**	$0.2	$0.4	**$4.7**	$0.6	$4.2	$6.2
FY1992	$2.9	$0.0	$0.0	**$2.9**	$0.2	$0.0	**$3.2**	$0.3	$2.9	$6.2
FY1993	$3.6	$0.0	$0.0	**$3.6**	$0.3	$0.0	**$3.9**	$0.3	$3.6	$5.8
FY1994	$2.2	$0.2	$0.0	**$2.4**	$0.3	$0.0	**$2.7**	$0.4	$2.4	$5.8
FY1995	$6.4	-$0.2	$0.0	**$6.2**	$0.1	$0.0	**$6.3**	$0.1	$6.2	$6.1
FY1996	$6.8	$0.0	$0.0	**$6.9**	$0.4	$0.0	**$7.3**	$0.4	$7.0	$6.7
FY1997	$7.9	$0.0	$0.0	**$7.9**	$0.3	$0.0	**$8.2**	$0.3	$7.9	$7.2
FY1998	$7.1	$0.0	$0.0	**$7.1**	$0.4	$0.0	**$7.6**	$0.4	$7.1	$8.1
FY1999	$7.4	$0.2	$0.0	**$7.5**	$0.4	$0.0	**$7.9**	$0.3	$7.5	$8.1
FY2000	$5.2	$0.0	$0.0	**$5.2**	$0.3	$0.0	**$5.5**	$0.3	$5.2	$8.7
FY2001	$4.1	$0.0	$0.2	**$4.3**	$0.5	$0.0	**$4.8**	$0.3	$4.5	$9.9
FY2002	$4.2	$0.0	$0.0	**$4.2**	$0.7	$0.0	**$5.0**	$0.9	$4.1	$9.9
FY1989-2002	**$72.0**	**$0.3**	**$0.2**	**$72.5**	**$4.7**	**$0.8**	**$78.1**	**$5.2**	**$72.9**	**$89.9**

Source: Washington State Department of Natural Resources Annual Report FY 1989-2001

Totals may not add due to rounding

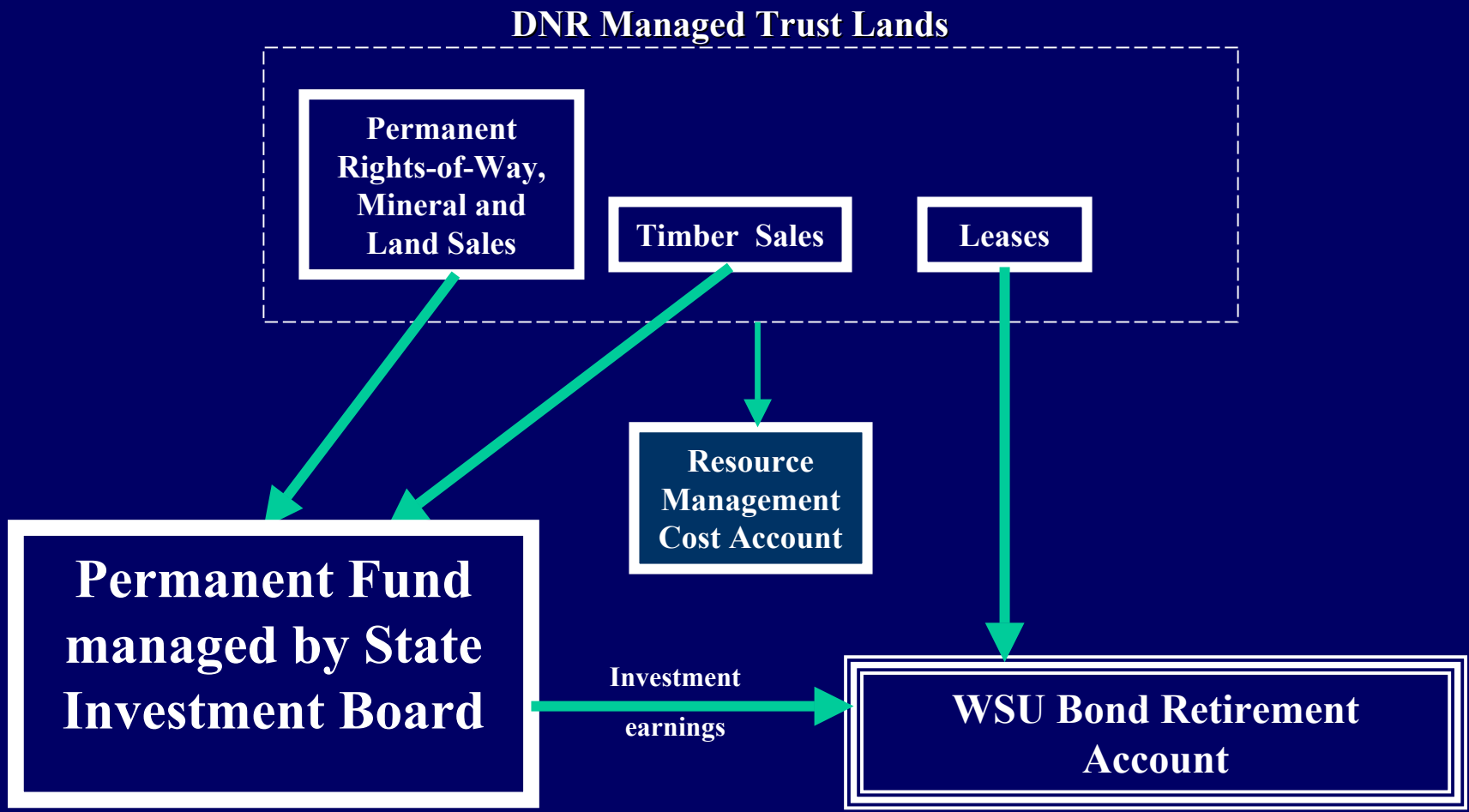
Table B-2: Scientific School Trust Distribution of Revenue



WASHINGTON STATE DEPARTMENT OF Natural Resources

Table B-2: Scientific School Trust Lands (WSU) Path of Revenue

Original Acres 100,000
Current Acres 80,428



Subject to changes and amendments over time

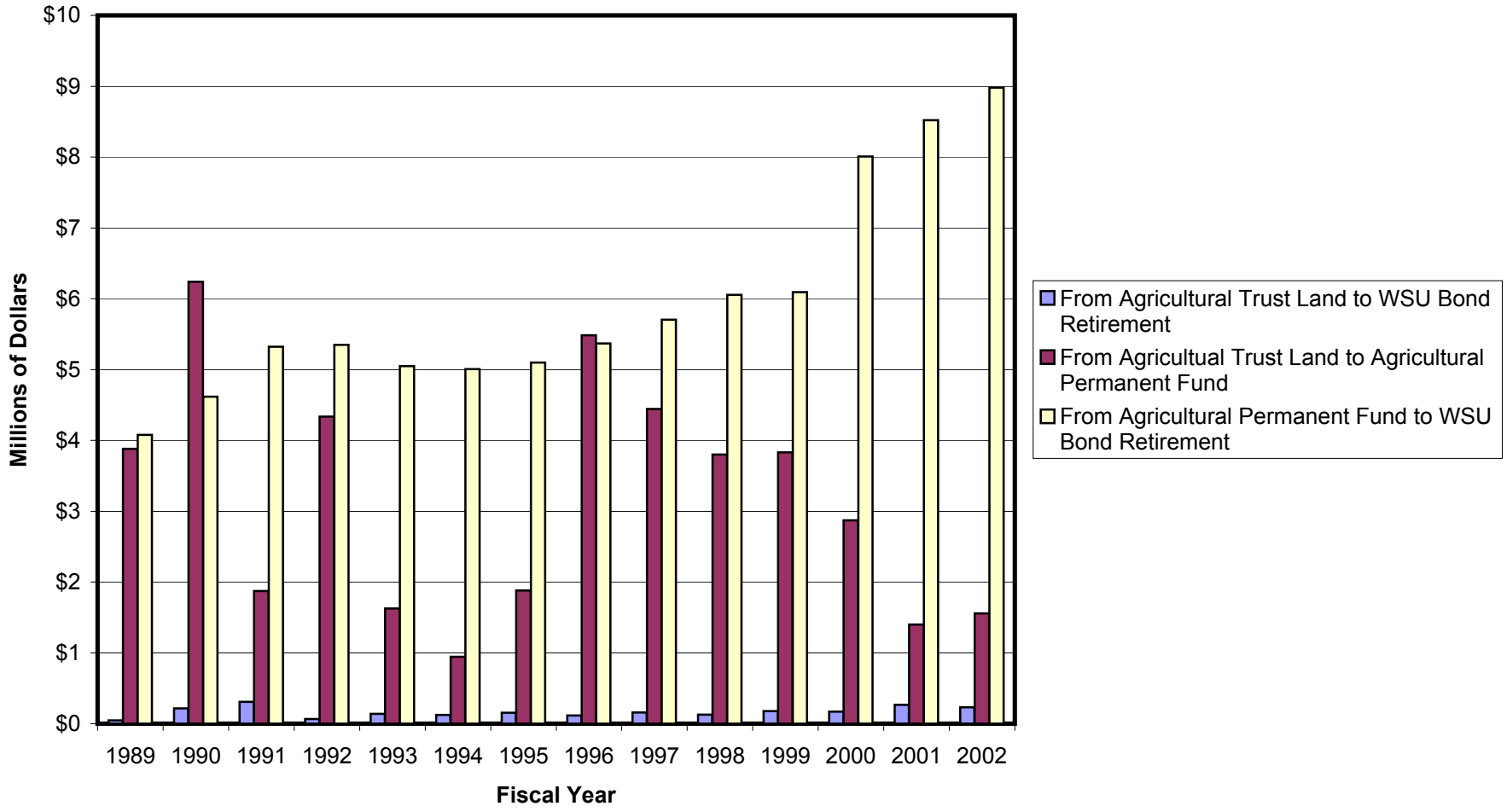
Table B-3: Agricultural Trust Revenues
From Agricultural Trust Lands Managed By the Department of Natural Resources
And From Agricultural Permanent Fund Managed by the State Investment Board
(In Millions of $'s)

Fiscal Year	From Agricultural Trust Lands									From Permanent Fund to WSU Bond Retirement
	Source of Revenue:						Grand Total	Distributed to:		
	Sales				Leases	Other Revenue		WSU Bond Retirement	Agricultural Permanent	
	Timber	Timber Related	Land	Total Sales						
FY1989	$3.6	$0.2	$0.0	**$3.8**	$0.1	$0.0	**$3.9**	$0.0	$3.9	$4.1
FY1990	$6.1	$0.2	$0.0	**$6.3**	$0.1	$0.1	**$6.5**	$0.2	$6.2	$4.6
FY1991	$1.9	$0.0	$0.0	**$1.9**	$0.1	$0.2	**$2.2**	$0.3	$1.9	$5.3
FY1992	$4.2	$0.1	$0.0	**$4.3**	$0.1	$0.0	**$4.4**	$0.1	$4.3	$5.3
FY1993	$1.6	$0.0	$0.0	**$1.6**	$0.2	$0.0	**$1.8**	$0.1	$1.6	$5.0
FY1994	$0.9	$0.0	$0.0	**$0.9**	$0.1	$0.1	**$1.1**	$0.1	$0.9	$5.0
FY1995	$1.8	$0.0	$0.0	**$1.8**	$0.3	$0.0	**$2.0**	$0.2	$1.9	$5.1
FY1996	$5.4	$0.1	$0.0	**$5.5**	$0.1	$0.0	**$5.6**	$0.1	$5.5	$5.4
FY1997	$4.5	$0.0	$0.0	**$4.4**	$0.1	$0.0	**$4.6**	$0.2	$4.4	$5.7
FY1998	$3.3	$0.5	$0.0	**$3.8**	$0.1	$0.0	**$3.9**	$0.1	$3.8	$6.1
FY1999	$3.8	$0.0	$0.0	**$3.8**	$0.2	$0.0	**$4.0**	$0.2	$3.8	$6.1
FY2000	$2.5	$0.3	$0.0	**$2.8**	$0.2	$0.0	**$3.0**	$0.2	$2.9	$8.0
FY2001	$1.4	$0.0	$0.0	**$1.4**	$0.3	$0.0	**$1.7**	$0.3	$1.4	$8.5
FY2002	$1.5	$0.1	$0.0	**$1.5**	$0.2	$0.0	**$1.8**	$0.2	$1.6	$9.0
FY1989-2002	**$42.5**	**$1.4**	**$0.0**	**$43.9**	**$2.2**	**$0.4**	**$46.5**	**$2.3**	**$44.2**	**$74.3**

Source: Washington State Department of Natural Resources Annual Report FY 1989-2001

Totals may not add due to rounding

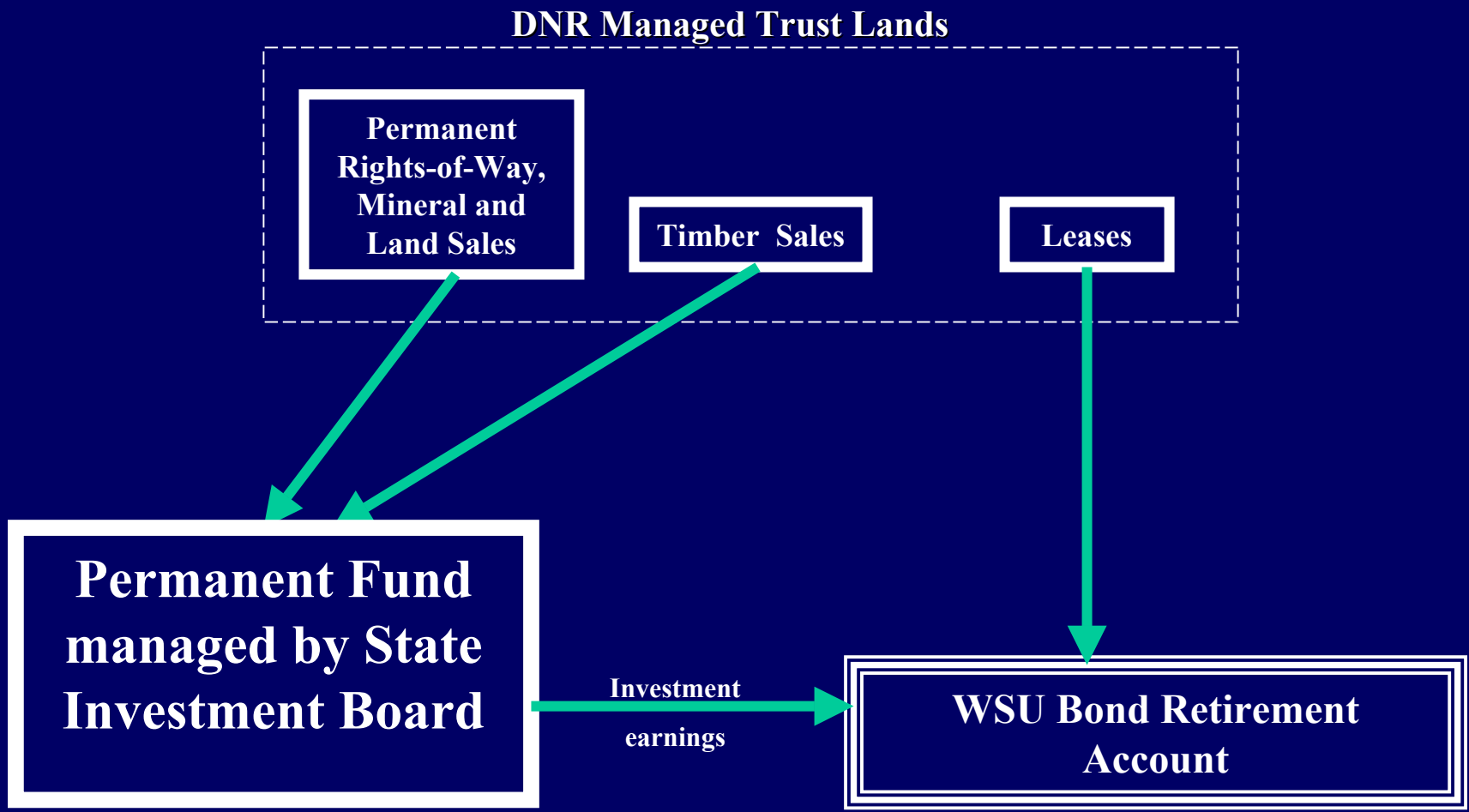
Table B-3: Agricultural School Trust Distribution of Revenue



WASHINGTON STATE DEPARTMENT OF Natural Resources

Table B-3: Agricultural School Trust Lands (WSU) Path of Revenue

Original Acres 90,000
Current Acres 70,738



Subject to changes and amendments over time

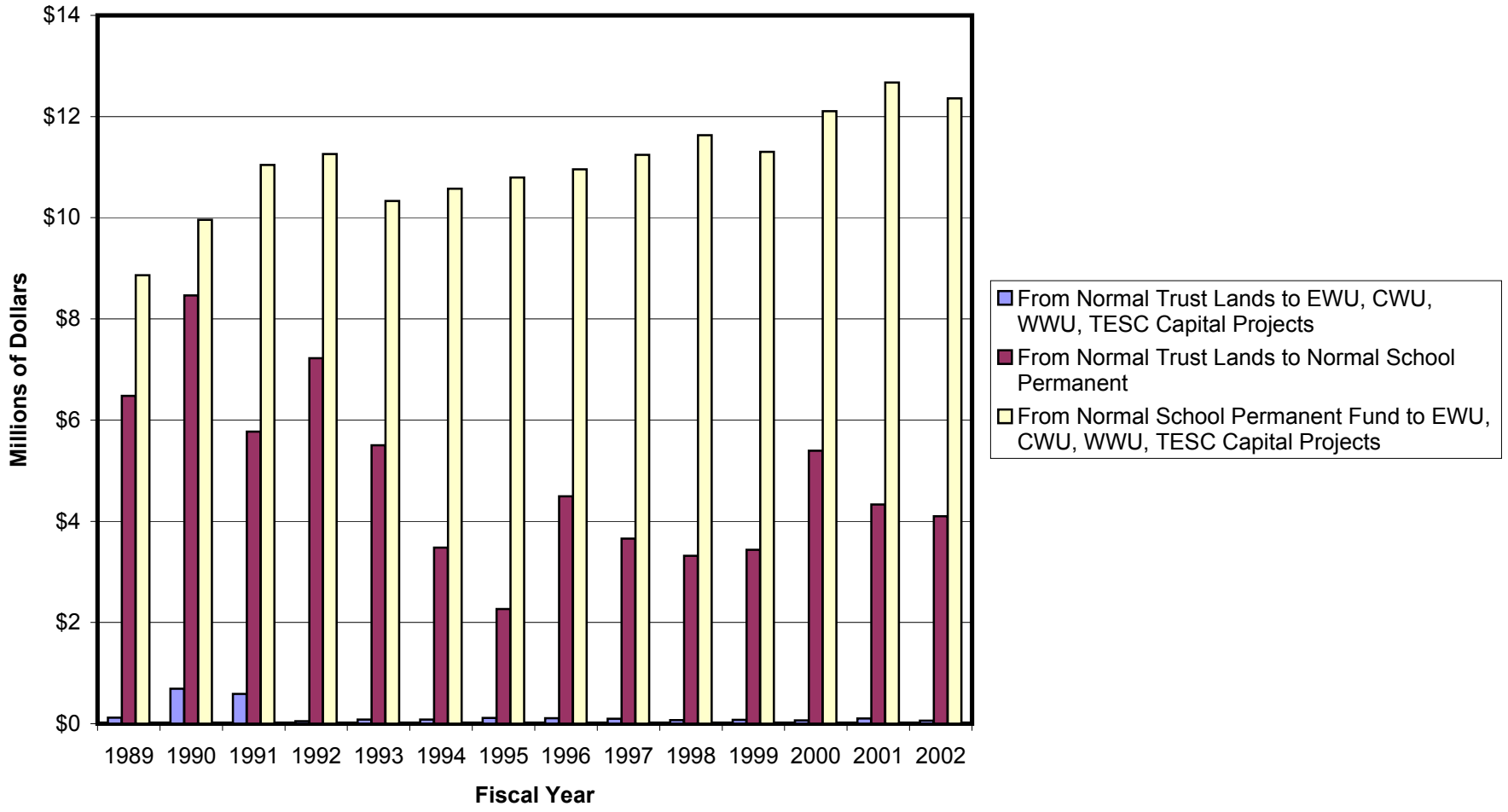
Table B-4: Normal School Revenues
From Normal School Trust Lands Managed by the Department of Natural Resources
And From Normal School Permanent Fund Managed by the State Investment Board
(In Millions of $'s)

Fiscal Year	From Normal School Trust Lands										From Permanent Fund to EWU, CWU WWU, TESC Capital Projects
	Source of Revenue:							Grand Total	Distributed to:		
	Sales					Leases	Other Revenue		EWU, CWU WWU, TESC Capital Projects	Normal School Permanent	
	Timber	Timber Cutting Rights	Timber Related	Land	Total Sales						
FY1989	$6.0	$0.0	$0.4	$0.0	**$6.4**	$0.1	$0.1	**$6.6**	$0.1	$6.5	$8.9
FY1990	$8.4	$0.0	$0.0	$0.0	**$8.4**	$0.1	$0.6	**$9.2**	$0.7	$8.5	$10.0
FY1991	$5.2	$0.0	$0.0	$0.0	**$5.2**	$0.1	$1.1	**$6.4**	$0.6	$5.8	$11.0
FY1992	$7.0	$0.0	$0.0	$0.0	**$7.0**	$0.1	$0.2	**$7.3**	$0.0	$7.2	$11.3
FY1993	$4.8	$0.5	$0.1	$0.0	**$5.4**	$0.1	$0.0	**$5.6**	$0.1	$5.5	$10.3
FY1994	$3.1	$0.4	$0.0	$0.0	**$3.5**	$0.1	$0.0	**$3.6**	$0.1	$3.5	$10.6
FY1995	$1.4	$0.9	$0.0	$0.0	**$2.3**	$0.1	$0.0	**$2.4**	$0.1	$2.3	$10.8
FY1996	$2.3	$2.1	$0.0	$0.0	**$4.5**	$0.1	$0.0	**$4.6**	$0.1	$4.5	$11.0
FY1997	$1.5	$2.1	$0.0	$0.0	**$4.5**	$0.1	$0.0	**$3.8**	$0.1	$3.7	$11.2
FY1998	$1.5	$1.8	$0.0	$0.0	**$3.3**	$0.1	$0.0	**$3.4**	$0.1	$3.3	$11.6
FY1999	$1.8	$1.7	$0.0	$0.0	**$3.4**	$0.1	$0.0	**$3.5**	$0.1	$3.4	$11.3
FY2000	$3.6	$1.8	$0.0	$0.0	**$5.4**	$0.1	$0.0	**$5.5**	$0.1	$5.4	$12.1
FY2001	$3.0	$1.4	$0.0	$0.0	**$4.3**	$0.1	$0.0	**$4.4**	$0.1	$4.3	$12.7
FY2002	$2.8	$1.3	$0.0	$0.0	**$4.1**	$0.1	$0.0	**$4.2**	$0.1	$4.1	$12.4
FY1989-2002	**$52.3**	**$14.1**	**$0.6**	**$0.0**	$67.7	**$1.1**	**$2.2**	$70.2	**$2.3**	**$67.9**	**$155.1**

Source: Washington State Department of Natural Resources Annual Report FY 1989-2001

Totals may not add due to rounding

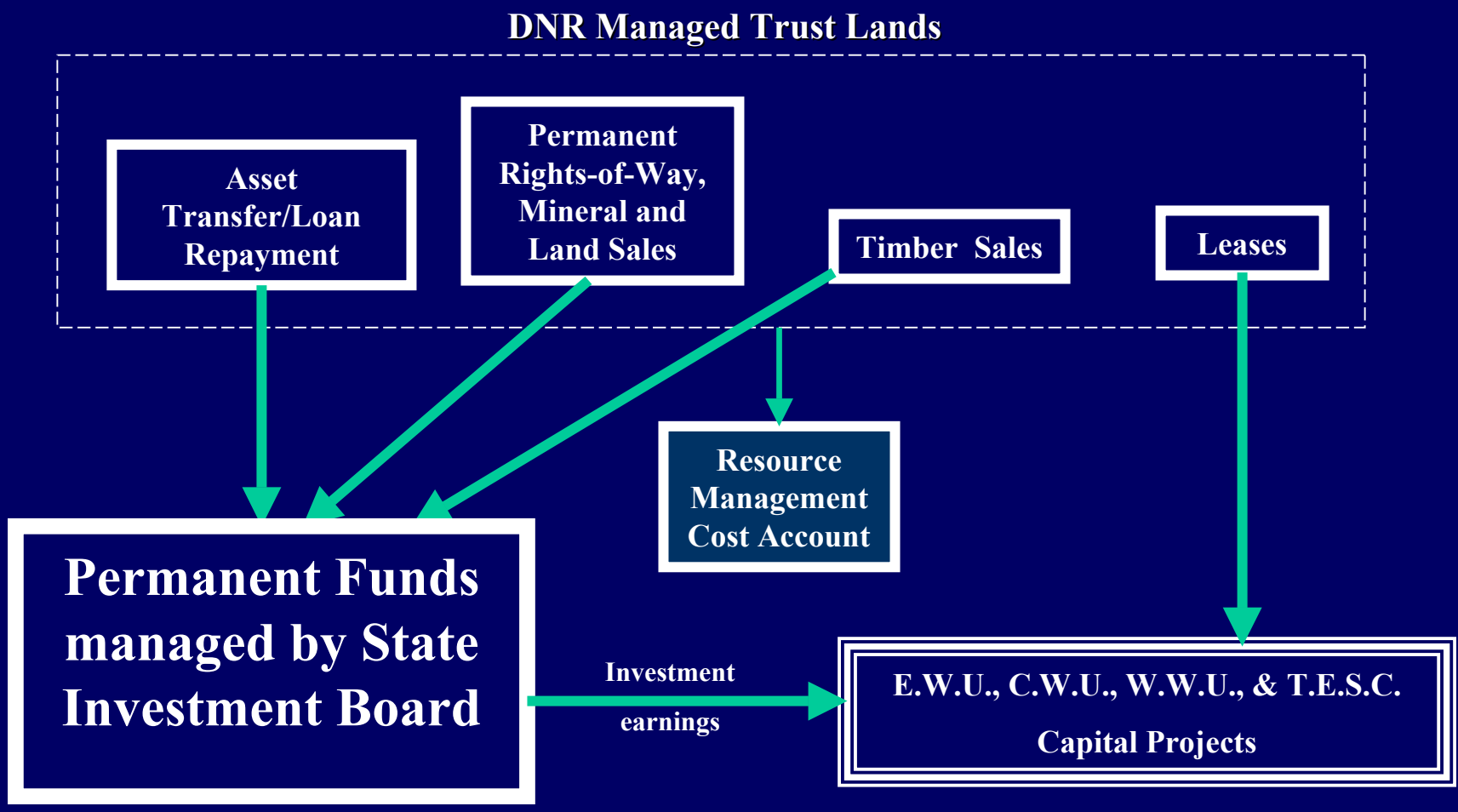
Table B-4: Normal School Trust Distribution of Revenue



WASHINGTON STATE DEPARTMENT OF Natural Resources

Table B-4: Normal School Trust Lands Path of Revenue (E.W.U., C.W.U., W.W.U., & T.E.S.C.)

Original Acres 100,000
Current Acres 64,304



Subject to changes and amendments over time

Table B-5: University Original and University Transfer Trust Revenues From The Original and Transferred Lands Lands Managed by the Department of Natural Resources And From University Permanent Fund Managed by the State Investment Board (In Millions of Dollars)

Fiscal Year	From University Original and Transferred Lands										From Permanent Fund to UW Bond Retirement
	Source of Revenue:							Grand Total	Distributed to:		
	Sales					Leases	Other Revenue		UW Bond Retirement	State University Permanent {2}	
	Timber	Timber Cutting Rights {1}	Timber Related	Land	Total Sales						
FY1989	$7.0	$0.0	$0.3	$0.2	**$7.4**	$0.3	$0.1	**$7.8**	$6.4	$1.4	$0.6
FY1990	$7.2	$0.0	$0.5	-$0.1	**$7.7**	$0.1	$1.8	**$9.6**	$9.8	-$0.2	$0.6
FY1991	$11.9	$0.0	$0.0	$0.0	**$11.9**	$0.2	$0.9	**$13.0**	$13.5	-$0.5	$0.7
FY1992	$5.0	$0.0	$0.0	$0.0	**$5.1**	$0.2	$0.0	**$5.3**	$4.4	$0.8	$0.7
FY1993	$4.3	$0.0	$0.0	$0.0	**$4.3**	$0.2	$0.0	**$4.4**	$3.8	$0.7	$0.7
FY1994	$2.3	$0.2	$0.0	$0.0	**$2.6**	$0.2	$0.0	**$2.8**	$2.4	$0.4	$0.7
FY1995	$4.5	$0.9	$0.0	$0.0	**$5.4**	$0.2	$0.0	**$5.6**	$4.5	$1.0	$0.8
FY1996	$2.6	$1.1	$0.0	$0.0	**$3.7**	$0.2	$0.0	**$3.9**	$1.8	$2.1	$0.9
FY1997	$3.5	$1.7	$0.0	$0.0	**$5.1**	$0.2	$0.0	**$5.3**	$2.5	$2.8	$1.0
FY1998	$1.2	$1.2	$0.0	$0.0	**$2.5**	$0.2	$0.0	**$2.7**	$1.5	$1.2	$1.3
FY1999	$1.9	$1.5	$0.3	$0.0	**$3.6**	$0.2	$0.0	**$3.8**	$1.8	$2.0	$1.3
FY2000	$0.2	$0.7	$0.0	$0.0	**$0.9**	$0.2	$0.0	**$1.1**	$0.3	$0.8	$1.5
FY2001	$1.0	$0.5	$0.0	$0.0	**$1.5**	$0.2	$0.0	**$1.7**	$1.1	$0.6	$1.5
FY2002	$0.5	$0.6	$0.0	$0.0	**$1.1**	$0.2	$0.0	**$1.4**	$0.5	$0.9	$1.5
FY1989-2002	**$53.1**	**$8.4**	**$1.2**	**$0.1**	$62.8	**$2.7**	**$2.8**	**$68.4**	**$54.4**	**$14.0**	**$13.8**

{1} Revenue from timber cutting rights on Forest Board Purchase lands That was transferred to the Common School, Capitol Building, Normal School, and University Granted Trusts as payment on the FDA debt to RMCA.

{2} Revenue on state university, agricultural school and scientific school trusts prior to FY1990 was distributed directly to either the UW or WSU Bond Retirement accounts, or the appropriate permanent funds, depending on the specific management activity which produced the revenue. In accordance with generally accepted accounting principles, debt service funds, such as the UW or WSU Bond Retirement accounts, cannot recognize revenue directly. Revenues formerly recorded to these two funds are now recorded to the respective permanent funds, and then an operating transfer is made to appropriate debt service fund. A University Permanent fund reported "negative revenue" for FY1990 and FY1991when the cash received on behalf of the debt service fund for prior fiscal years' accrued revenues exceeded its current fiscal year's revenues. See FY1990 and FY1991 Annual Reports for detail.

Source: Washington State Department of Natural Resources Annual Report FY1989 through FY2001

Totals may not add due to rounding

Table B-5: University Trust Original and Transferred from CEP&RI Distribution of Revenue

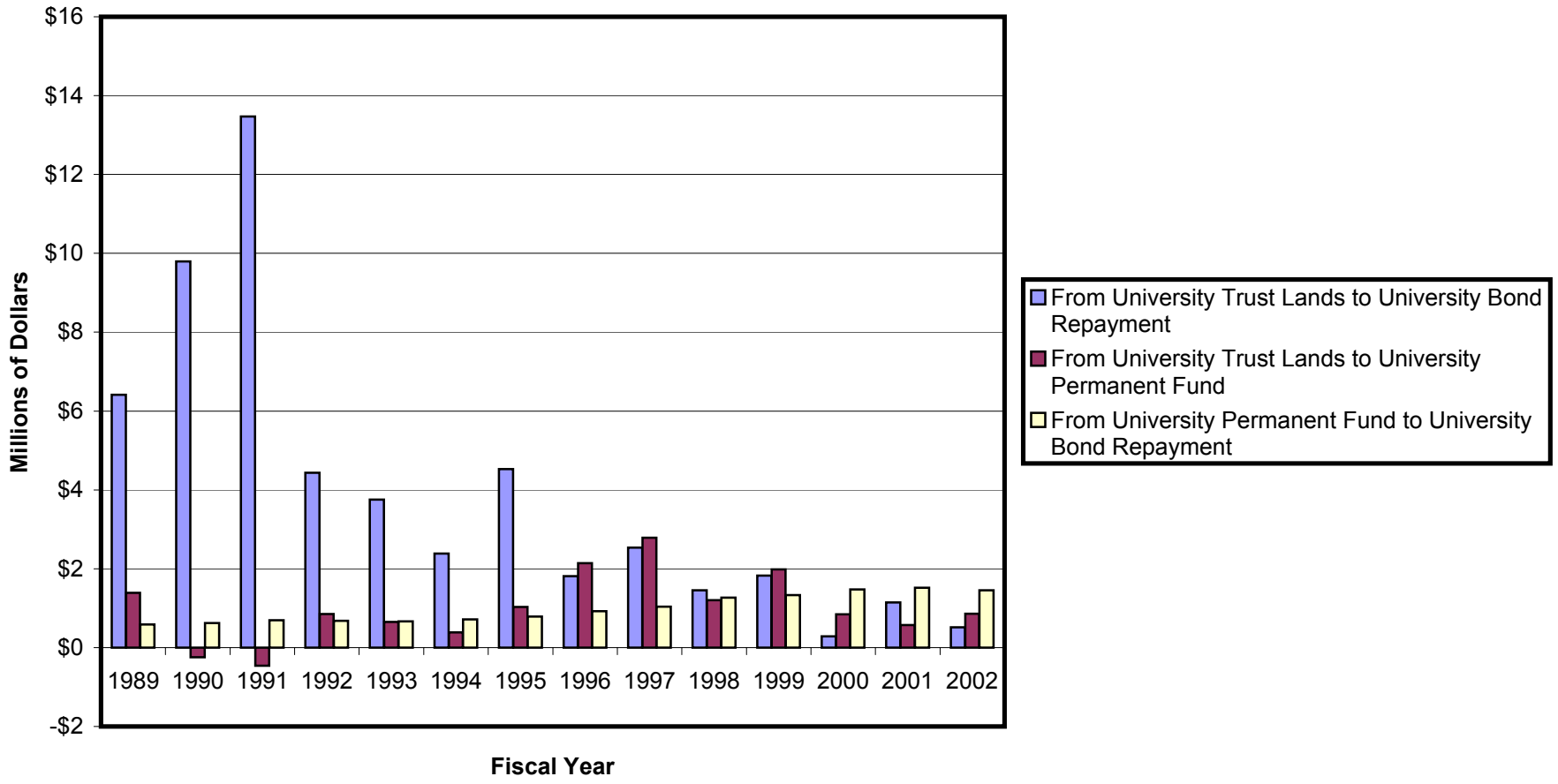


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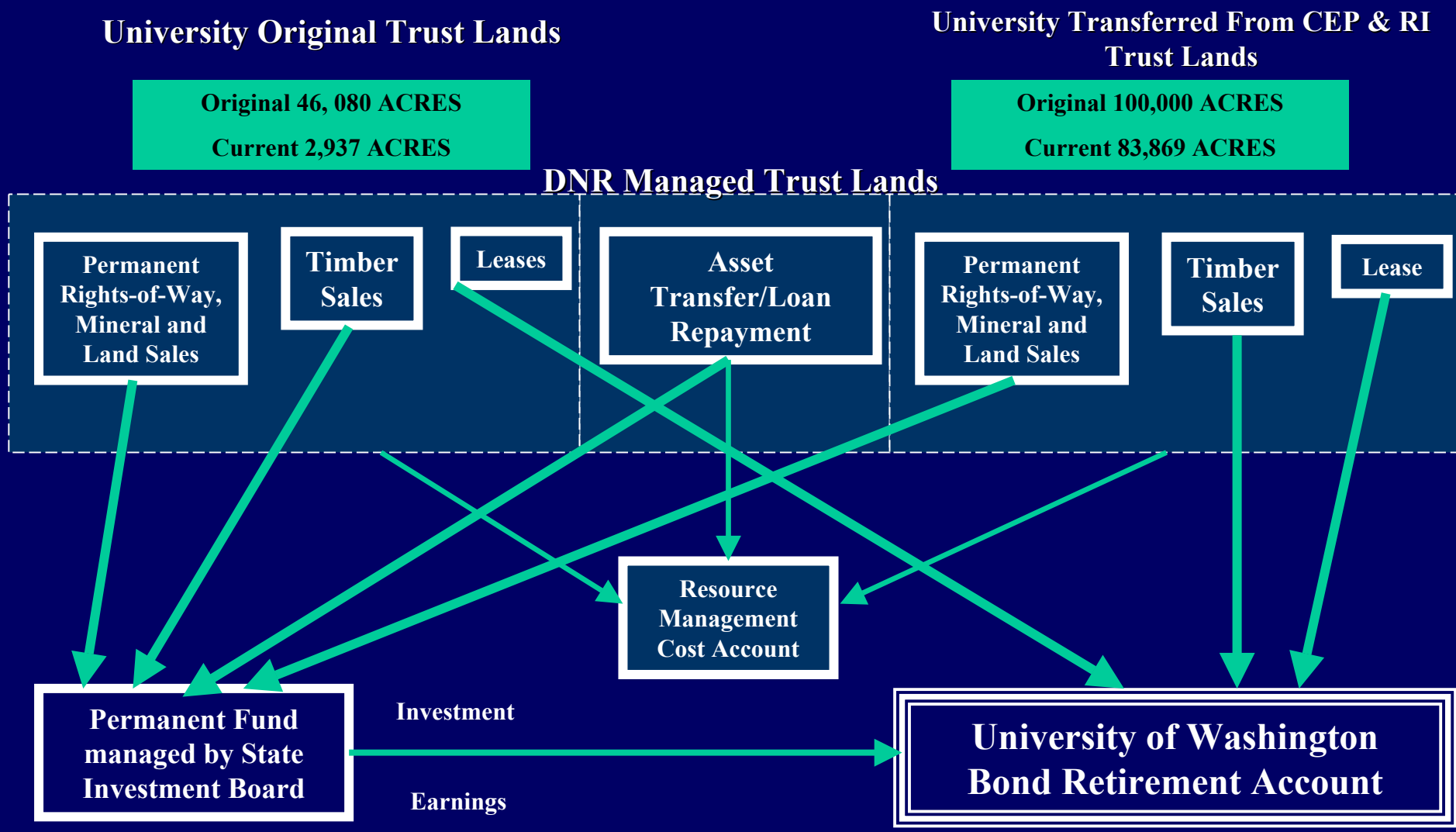
Table B-5:University Trust Lands Path of Revenue



Subject to changes and amendments over time

Table B-6: Revenues to Beneficiaries From Charitable, Educational, Penal and Reformatory Institutions Grant Assets Managed by the Department of Natural Resources by Source (In Millions of Dollars)

Fiscal Year	Sales					Leases	Other Revenue	Grand Total
	Timber	Timber Cutting Rights	Timber Related	Land	Total Sales			
FY1989	$2.8	$0.0	$0.0	$0.1	**$3.0**	$0.2	$0.1	**$3.3**
FY1990	$9.0	$0.0	$0.0	$0.1	**$9.1**	$0.1	$0.1	**$9.3**
FY1991	$5.2	$0.0	$0.0	$0.0	**$5.2**	$0.1	$0.2	**$5.6**
FY1992	$4.4	$0.0	$0.0	$0.1	**$4.6**	$0.0	$0.0	**$4.6**
FY1993	$3.0	$0.0	$0.0	$0.1	**$3.2**	$0.1	$0.1	**$3.4**
FY1994	$4.6	$0.0	$0.0	$0.1	**$4.7**	$0.3	$0.1	**$5.0**
FY1995	$2.1	$0.0	$0.0	$0.1	**$2.3**	$0.2	$0.0	**$2.6**
FY1996	$4.8	$0.0	$0.0	$0.2	**$5.0**	$0.3	$0.1	**$5.5**
FY1997	$12.1	$0.0	$0.0	$0.0	**$12.1**	$0.8	$0.0	**$12.9**
FY1998	$4.5	$0.0	$0.0	$0.0	**$4.5**	$1.0	$0.0	**$5.5**
FY1999	$3.3	$0.0	$0.2	$0.0	**$3.5**	$1.0	$0.0	**$4.5**
FY2000	$4.4	$0.0	$0.0	$0.0	**$4.4**	$1.0	$0.0	**$5.4**
FY2001	$2.4	$0.0	-$0.1	$0.0	**$2.4**	$1.0	$0.0	**$3.3**
FY2002	$3.8	$0.0	$0.0	$0.0	**$3.9**	$0.7	$0.0	**$4.6**
FY1989-2002	**$66.6**	**$0.0**	**$0.3**	**$0.9**	**$67.8**	**$6.9**	**$0.7**	**$75.4**

Source: Washington State Department of Natural Resources Annual Report FY 1989-2001

Totals may not add due to rounding

Table B-6: Charitable, Educational, Penal and Reformatory Institutions Trust (CEP&RI) Distribution of Revenue

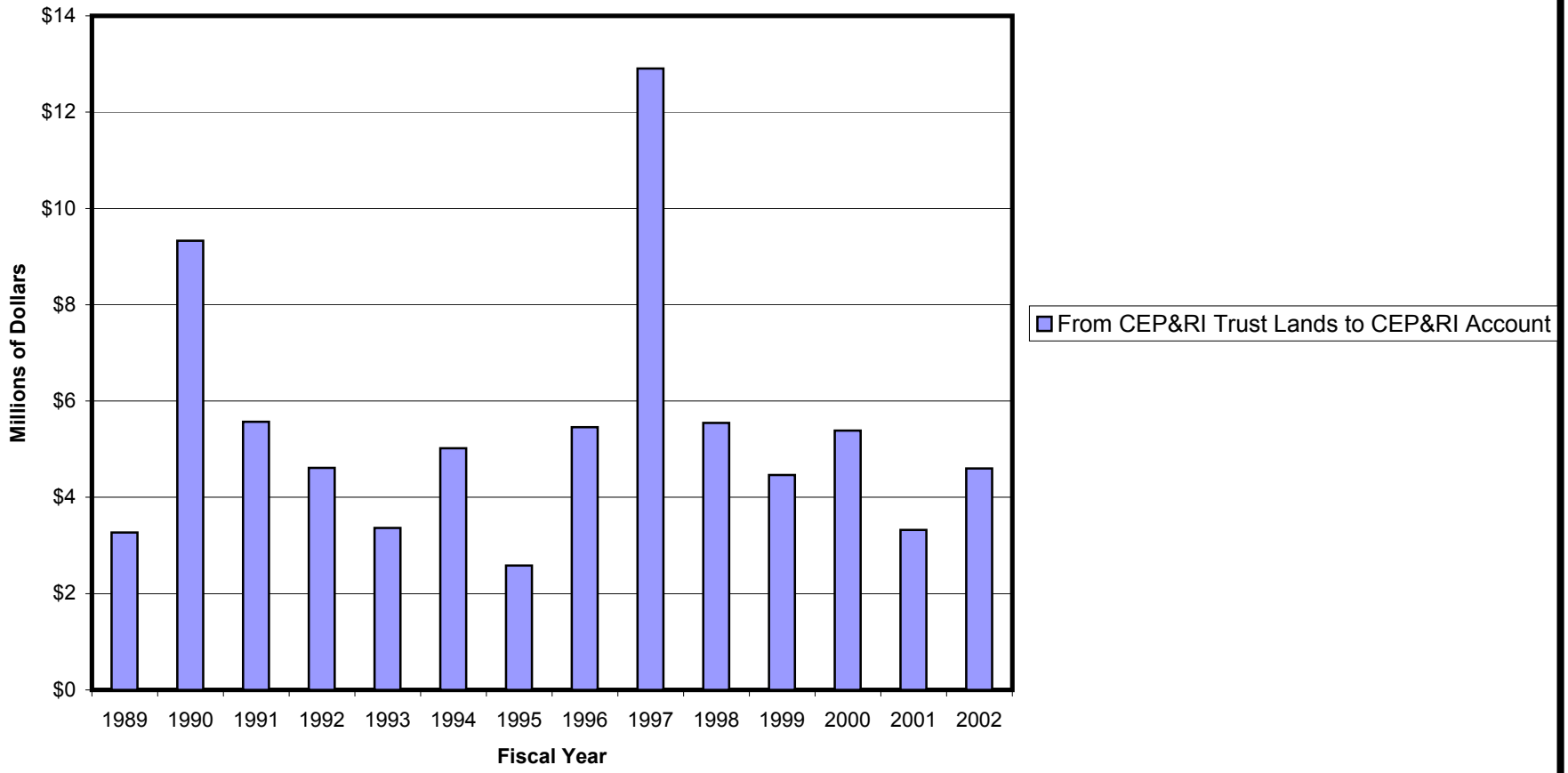


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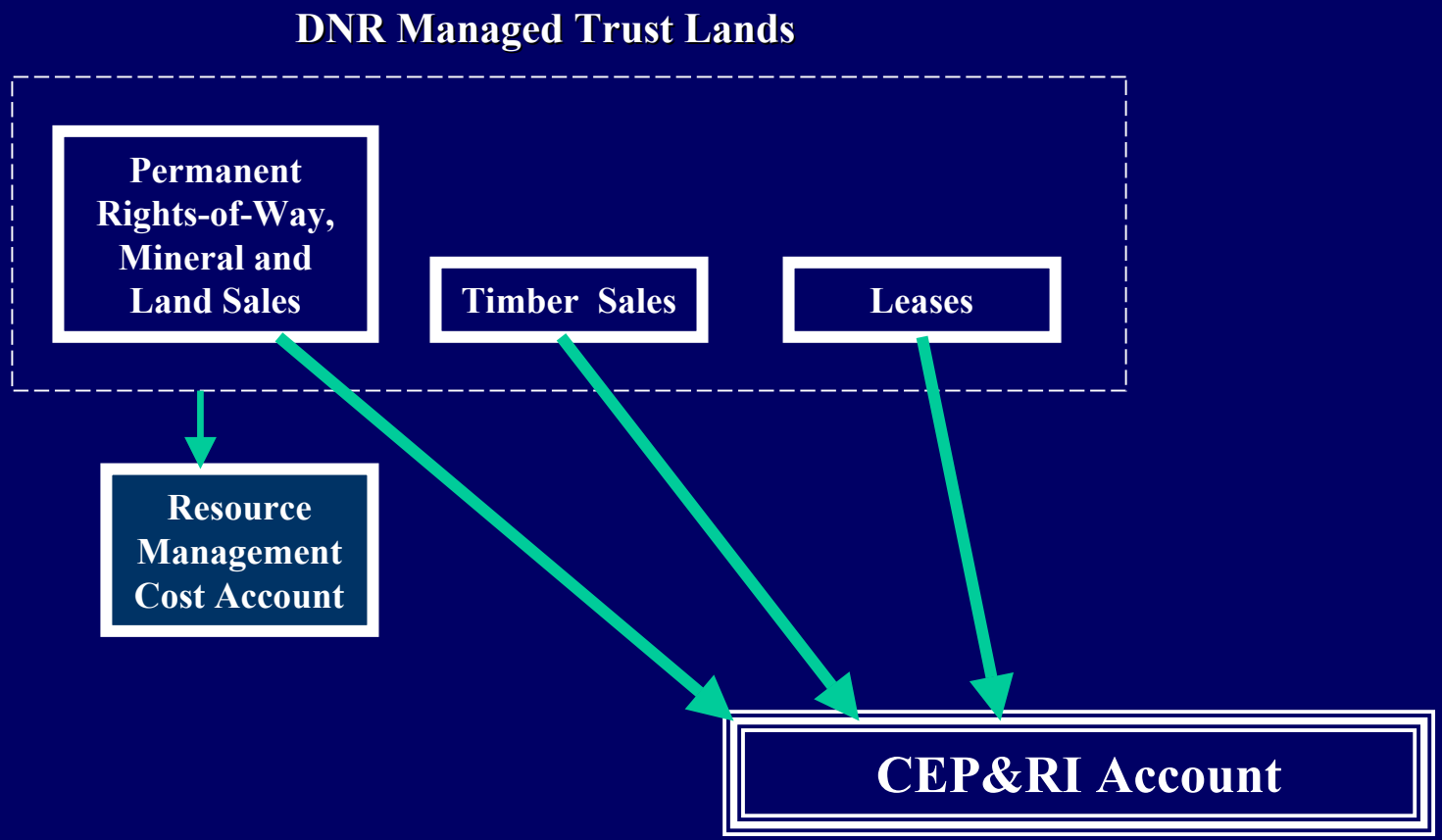
Table B-6: Charitable, Educational, Penal and Reformatory Institutions Trust Lands Path of Revenue

Original Acres 200,000
Current Acres 69,873



Subject to changes and amendments over time

Table B-7: Revenues to the Capitol Building Construction Account From Capitol Building Grant Assets Managed by the Department of Natural Resources (In Millions of Dollars)

Fiscal Year	Sales					Leases	Other Revenue	Grand Total
	Timber	Timber Cutting Rights	Timber Related	Land	Total Sales			
FY1989	$6.9	$0.0	$0.0	$0.0	**$6.9**	$0.2	$0.0	**$7.1**
FY1990	$10.2	$0.0	$0.0	$0.0	**$10.2**	$0.1	$0.4	**$10.8**
FY1991	$5.6	$0.0	$0.0	$0.0	**$5.6**	$0.1	$0.7	**$6.3**
FY1992	$4.9	$0.0	$0.0	$0.0	**$4.9**	$0.0	$0.1	**$5.0**
FY1993	$5.4	$0.2	$0.0	$0.0	**$5.6**	$0.1	$0.0	**$5.7**
FY1994	$2.1	$0.1	$0.0	$0.0	**$2.2**	$0.1	$0.0	**$2.4**
FY1995	$4.4	$0.3	$0.0	$0.0	**$4.7**	$0.1	$0.0	**$4.8**
FY1996	$4.1	$0.7	$0.0	$0.0	**$4.8**	$0.2	$0.0	**$5.0**
FY1997	$6.5	$0.7	$0.0	$0.0	**$7.2**	$0.1	$0.0	**$7.3**
FY1998	$5.6	$0.6	$0.0	$0.0	**$6.1**	$0.2	$0.0	**$6.3**
FY1999	$6.6	$0.5	$0.1	$0.0	**$7.2**	$0.1	$0.0	**$7.3**
FY2000	$7.7	$0.6	$0.0	$0.0	**$8.2**	$0.1	$0.0	**$8.4**
FY2001	$5.7	$0.4	$0.0	$0.0	**$6.1**	$0.1	$0.0	**$6.2**
FY2002	$7.2	$0.4	$0.0	$0.0	**$7.6**	$0.1	$0.0	**$7.8**
FY1989-2002	**$82.8**	**$4.4**	**$0.1**	**$0.0**	$87.4	**$1.7**	**$1.3**	**$90.3**

Source: Washington State Department of Natural Resources Annual Report FY 1989-2001

Totals may not add due to rounding

Table B-7: Capitol Building Trust Distribution of Revenue

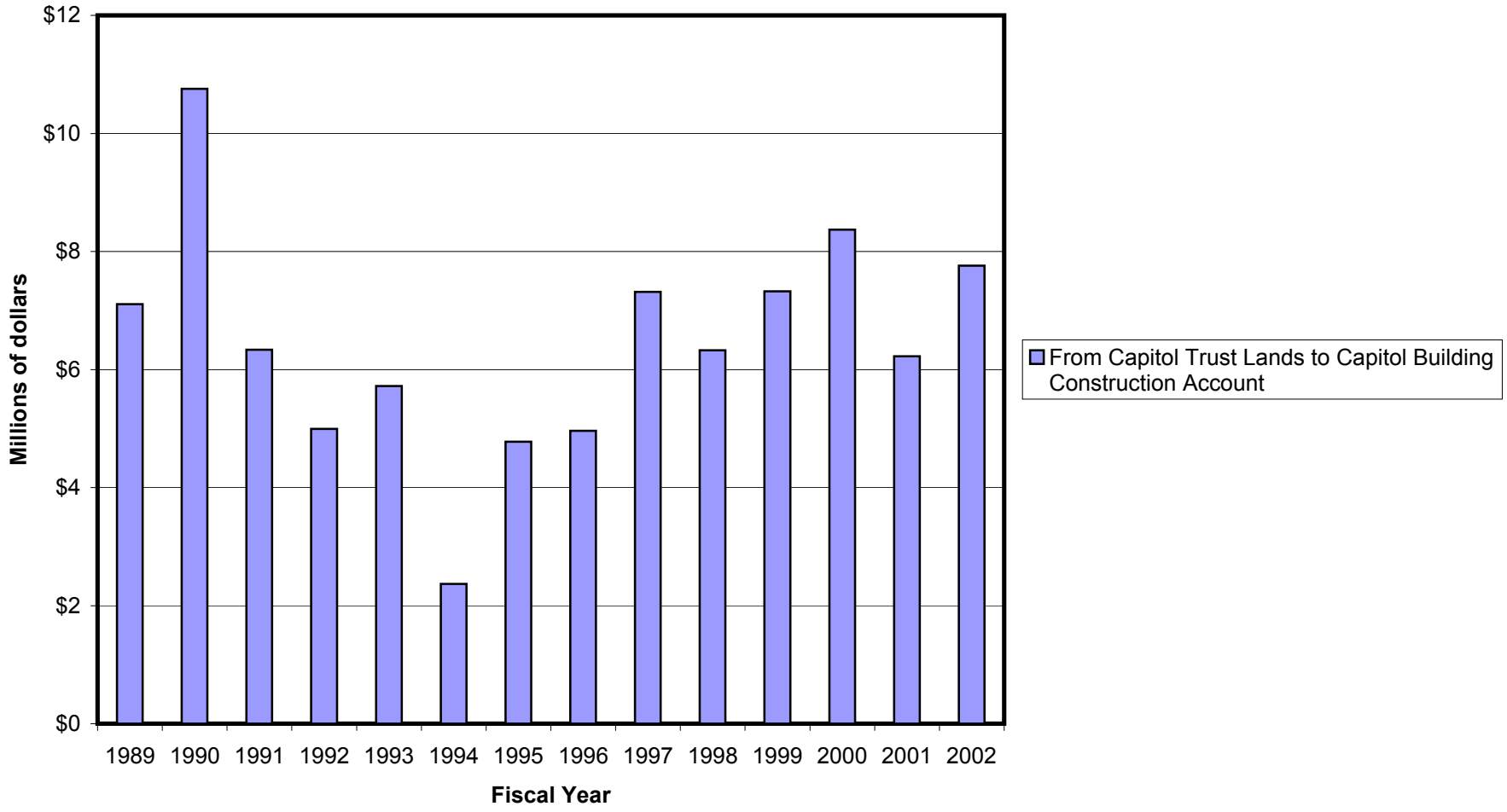


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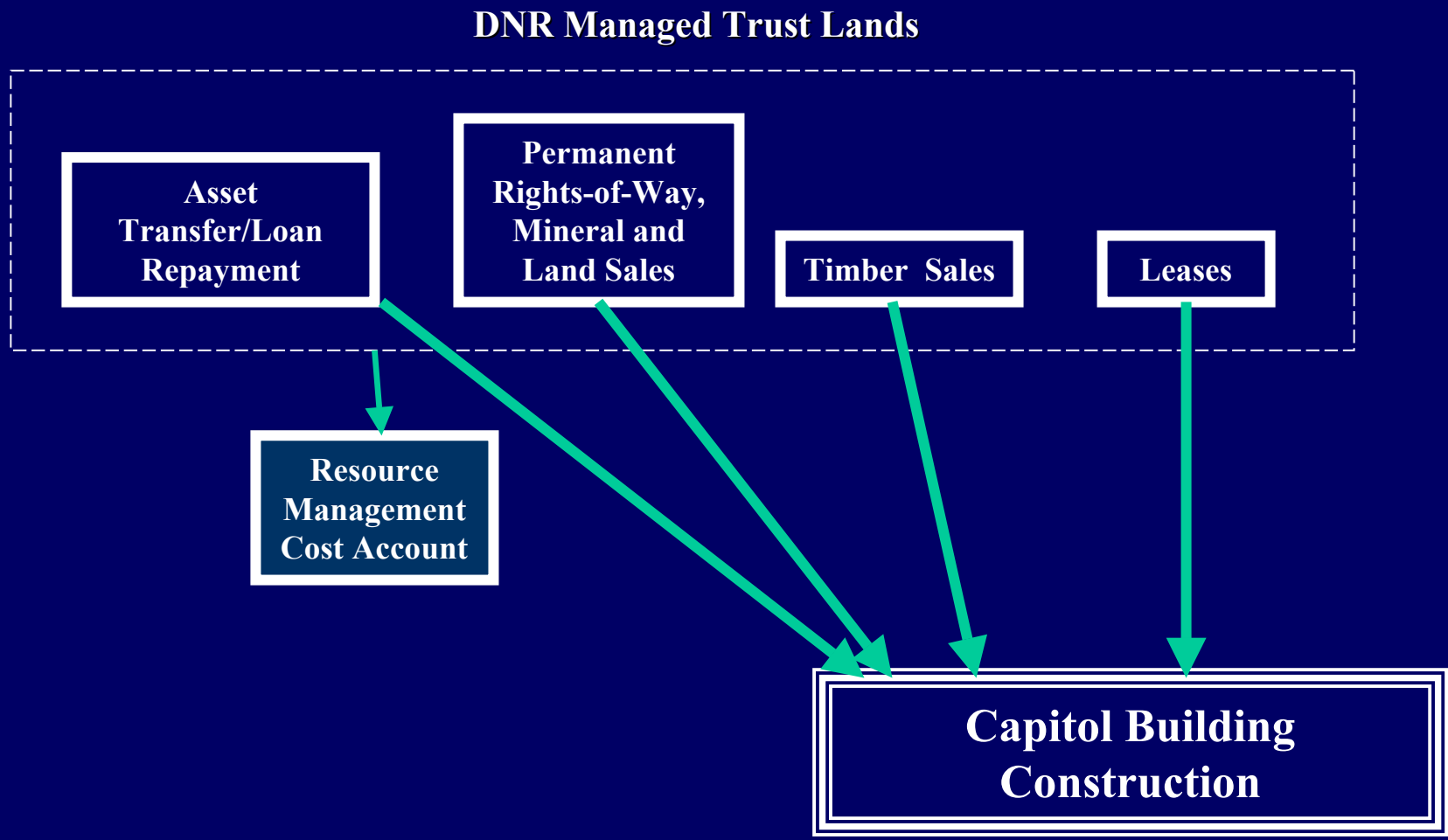
Table B-7: Capitol Grant Trust Lands Path of Revenue

Original Acres 132,000
Current Acres 108,981



Subject to changes and amendments over time